

# MANUFACTURERS RECORD

A Weekly Newspaper Devoted to the Industrial, Financial, Railroad,  
Mining, Contracting, Engineering, Building, and General  
Business Interests of the South and Southwest

Vol. 69  
No. 24

ESTABLISHED 1882

\$4.00 Per Year  
Single Copy 15 Cents

## How to Organize a Brigade of Iron Manufacturers to March South

THOMAS DEVLIN, PRESIDENT THOMAS DEVLIN MFG. CO.,  
Philadelphia, Pa., U. S. A.

If all the editors in Dixie gave as much thought—real thought—to improving conditions in the South as you do, and furnished such a strong argument to back a stand on preparedness as you give in the article published in the New York Sun of the issue of May 26, 1916, there would soon be a brigade of iron manufacturers all journeying to the "Sunny South" and the Northern boomers for Dixie might soon be adopting the refrain, "marching to and through Baltimore."

The copy was mailed to me blue-penciled; I do not know who sent it, but I can assure you that I not only read it with a great deal of interest, but have passed it along for many others to read, and I feel indebted to and return my thanks to the unknown sender of that paper to me.

Keep on, Mr. Edmonds, and were I but forty or fifty years younger I might break camp and be a marcher to that land of promise.

BALTIMORE, JUNE 15, 1916



## First Aids

TO THE

## Boiler Room

**Climchfield Fuel Company**  
SPARTANBURG, S. C.

## ALLIS-CHALMERS

MANUFACTURING COMPANY

MILWAUKEE, WIS.

### Power and Electrical Machinery

Steam Turbines  
Hydraulic Turbines  
Corliss Engines  
Gas Engines  
Electric Motors

Electric Generators  
Pumping Engines  
Air Compressors  
Condensing Apparatus  
Centrifugal Pumps

Oil Engines, Etc.

Combined contracts for complete power units with undivided responsibility insure satisfactory service

Offices in All Principal Cities

For all Canadian Business refer to Canadian Allis-Chalmers Co., Ltd., Toronto, Ontario, Canada.

FOREIGN REPRESENTATIVES: H. I. Keen, 722 Salisbury House, London W. 1, E. C.; London, Eng. Frank R. Perrot, 200 Hay St., Perth, W. Australia. Frank R. Perrot, 200 Clarence St., Sydney, N. S. W. Mark E. Lamb, Huancayo 100, Casilla 200, Santiago, Chile.

#### DISTRICT OFFICES

Atlanta, Ga., 114 Healy Bldg.  
Boston, Mass., 20 Congress St.  
Buffalo, N. Y., 211 Scott Square Bldg.  
Chicago, Ill., People's Gas Bldg.  
Cincinnati, O., First National Bank Bldg.  
Cleveland, O., Schofield Bldg.  
Dallas, Tex., Sumpter Bldg.  
Denver, Col., First National Bank Bldg.  
Detroit, Mich., Ford Bldg.  
Duluth, Minn., Alworth Bldg.  
El Paso, Tex., 200 San Diego St.  
Indianapolis, Ind., Traction Term? Bldg.  
Kansas City, Mo., Waldheim Bldg.

Los Angeles, Cal., Title Insurance Bldg.  
Milwaukee, Wis., West Allis Works.  
Minneapolis, Minn., Corn Exchange Bldg.  
New Orleans, La., Majors Exchange Bldg.  
New York, N. Y., 20 Church St.  
Philadelphia, Pa., Pennsylvania Bldg.  
Pittsburgh, Pa., 1200 Park Bldg.  
Portland, Ore., 41 First St.  
St. Louis, Mo., Railway Exchange Bldg.  
Salt Lake City, Utah, Kearns Bldg.  
San Francisco, Cal., Blaine Bldg.  
Seattle, Wash., 115 Jackson St.  
Toledo, O., Ohio Bldg.

### RALEIGH-POCAHONTAS COAL CO.,

NO. 3 CELEBRATED  
POCAHONTAS  
COAL

NEW RIVER  
SMOKELESS  
COAL



BOOMS 515-16-17  
GRADE 16 TRUCK 24IN.

ANNUAL CAPACITY  
1,000,000 TONS

NORFOLK, VA.

### The Village Blacksmith Uses Consolidation Georges Creek Smithing Coal

Because no other fuel is capable of doing the same amount of work. Reduces cost of manufacture by its maximum heat-producing power. Cokes promptly with a large arch, sufficient to cover work of any size that can reasonably be handled on the anvil. Good clean welds, free from sulphur. None others "Just as Good". None others so economical. Used as far West as Seattle.

### THE CONSOLIDATION COAL CO.

INCORPORATED

F. W. WILSHIRE, General Manager of Sales  
BANKERS' TRUST BUILDING, 14 WALL ST.  
NEW YORK, N. Y.

#### BRANCH OFFICES

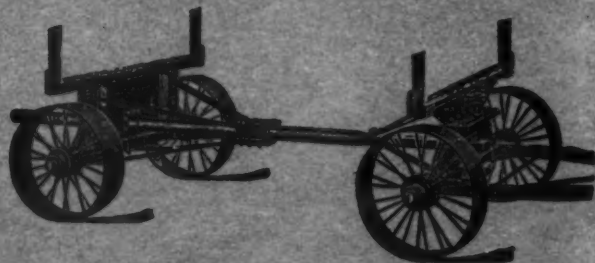
Boston  
Portsmouth  
New Haven

London, England  
New York  
Philadelphia

Baltimore  
Washington  
Rome, Italy

Chicago  
Cincinnati  
Louisville  
Detroit

Northwestern Fuel Co., Pioneer Press Bldg., St. Paul, Minn.



**STEEL WHEELS** for any purpose, any size to fit any axle, with or without roller bearing. **STEEL AXLES**, straight or bent; or **WOOD AXLES**, LOG WAGONS, FARM TRUCKS, TRAILER WAGONS.

### Lumber Buggies and Carts

— ALSO —

**DESIGNERS** of special mountings of all kinds of concrete mixers, gasoline engines, well drills, etc., built to customers' requirements.

Our heavy hauling equipment considered the standard the country over.

Write us about your needs. Let us help you solve your hauling problems.



WRITE FOR CATALOGUE

**ELECTRIC WHEEL CO., MFRS.**

5 Ohio Street, QUINCY, ILL., U. S. A.



S

ry

with  
vice

Second  
a Vol  
Frank  
son III

the  
the  
the  
the  
the  
the  
the  
the

FEEL  
ONS,

xers,  
country



rs.

Vol. L.  
W

MAN  
RICHARD  
FRAN  
RI

NEW YORK  
BOSTON

Subscri  
St  
Ph  
in

[Enter

In a  
pertin  
be ad  
Recor  
editor

W

TUBERS

We v  
about,  
views a

We  
body, l  
we aim  
and an  
the wo  
by crit

If ev  
tell oth  
its wor  
an end  
the wo  
strengt  
operati  
press t  
FACTUR

AN

PRE  
Boy

The A  
in the  
pledge:

R  
t  
t  
a  
n

If th  
take s  
imagin  
any lat  
conceiv  
mitted  
the fed  
of Ame  
teer se  
tional  
would  
to whi

Did  
mate?



# MANUFACTURERS RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

Trade Name Registered in the U. S. Patent Office

Vol. LXIX. No. 24.  
WEEKLY.

BALTIMORE, JUNE 15, 1916.

\$4.00 A YEAR,  
SINGLE COPIES, 15 CENTS.

PUBLISHED EVERY THURSDAY BY THE  
MANUFACTURERS RECORD PUBLISHING CO.

RICHARD H. EDMONDS, Pres. VICTOR H. POWER, Treas.  
FRANK GOULD, Vice-Pres. I. S. FIELD, Sec'y.

RICHARD H. EDMONDS, Editor and General Manager

## BRANCH OFFICES:

NEW YORK, 52 Broadway CHICAGO, 1409 Fisher Bldg.  
BOSTON, 733 Old South Bldg. ST. LOUIS, 608 Century Building

Subscription \$4 a year (payable in advance) to United States, Mexico, Cuba, Porto Rico, Hawaii and the Philippines. To Foreign Countries (including Canada) in the Postal Union, \$6.50 a year.

(Entered at the Baltimore Postoffice as second-class matter.)

In order to avoid delays, all correspondence pertaining to news or advertising matters should be addressed directly to the Manufacturers Record, Baltimore, Md., and not to individual editors, officers, employees or any branch office.

## WILL YOU CO-OPERATE?

WE want to enlist the active co-operation of every subscriber in making the MANUFACTURERS RECORD of more value to all subscribers.

We want to know what our readers are thinking about, and how they view pro or con the editorial views and the general news which we publish.

We have no thought that we can please everybody, but we want to make our readers think, and we aim to give them information which they cannot find anywhere else. Our readers can help us in the work we are doing by suggestions as well as by criticisms. Both are invited.

If every subscriber would actively co-operate to tell others about the MANUFACTURERS RECORD and its work, and thus help to broaden its circulation, an endless chain of activity would be created and the work for the South be vastly extended and strengthened. Is it too much to ask for this co-operation from the thousands who constantly express their hearty appreciation of what the MANUFACTURERS RECORD is doing?

## AN ANTI-ENLISTMENT CAMPAIGN.

PRESIDENT E. A. McALPIN of the United States Boy Scouts, in a letter, says:

The Anti-Enlistment League is about to start a campaign in the colleges and universities asking signatures to this pledge:

"I, being over eighteen years of age, hereby pledge myself against enlistment as a volunteer for any military or naval service in international war, offensive or defensive, and against giving my approval to such enlistment on the part of others."

If the Anti-Enlistment League proposes to undertake such a fool piece of work as this, we cannot imagine that college students will be influenced to any large extent by it. It seems hardly possible to conceive that men of sufficient intelligence to be permitted to roam beyond the grounds of asylums for the feeble-minded would undertake to ask the boys of America to pledge themselves against any volunteer service either in offensive or defensive international war. If there are any such men at large, it would seem time to confine them to the institutions to which they properly belong.

Did Teddy refuse to run because of his running mate?

## An Atmosphere for Manufactures Must Be Created in South

THOUGH comparisons may be odious, it is only by comparisons that we can gain knowledge. It does not count very much, for instance, to say that Georgia has \$258,000,000 capital invested in manufacturing unless we can form some intelligent understanding of how that compares with what other States have invested in this way and at the same time study the facts in connection with population, with area and advantages, and draw lessons therefrom.

In 1914 Connecticut had invested in manufacturing a total of \$620,194,000. The increase in the five-year period from 1909 to 1914 alone was greater by \$22,000,000 than the total amount of capital invested in manufacturing in Mississippi. It was greater by \$27,000,000 than the aggregate manufacturing capital of Arkansas.

The magnitude of this industrial development in Connecticut is seen in the fact that it is \$159,000,000 greater than the combined manufacturing capital of Georgia and South Carolina, and is \$84,000,000 greater than the total manufacturing capital of North Carolina and Texas.

These simple facts, striking as they are, can be better understood when it is remembered that the total land area of Connecticut is only 4820 square miles, while the land area of Georgia is 58,725 square miles, that of South Carolina 30,495 square miles and that of North Carolina 48,740 square miles, while Texas is simply too big to talk about, with its more than 262,000 square miles. But area alone does not count.

Connecticut has a population of 1,200,000 only.

Connecticut had invested in its factories in 1914 more than \$500 per capita for its entire population, while Georgia in 1914 had only \$92 per capita, or but little more than one-sixth as much per capita as Connecticut.

Rhode Island is smaller than many of the counties in the South. Its total land area is 1067 square miles. It might be cut off of any one corner of almost any State in the South and the rest of the State would never know that it had been lost, so far as area is concerned. But Rhode Island had in 1914 a manufacturing capital of \$304,595,000, though its population was only 602,000.

Rhode Island, with an area of a little more than 1000 square miles, and with a population of only 602,000, had \$46,000,000 more invested in manufacturing than Georgia, with its 58,000 square miles and its 2,800,000 people. It had \$101,000,000 more money in factories than South Carolina, with over 30,000 square miles of land area and a population of 1,600,000. North Carolina is accounted one of the prosperous industrial States of the South, but, though it is 48 times as large as Rhode Island, and though its population is nearly four times as great, it had in 1914 \$51,000,000 less capital invested in manufacturing than that tiny little State of New England.

Running through the whole South in contrast with New England equally as striking statistics could be presented showing the amazing industrial development of New England as compared with the more limited industrial progress of the South.

In these figures there should be inspiration for the South, not discouragement. The inspiration should be found in the limitless possibilities of this section, whenever the South pursues with the same tireless energy its industrial development that New England has given to its growth, in working out this truly marvelous manufacturing wealth.

There are more reasons for the South's relative backwardness as compared with New England's in-

dustrial progress than the mere matter of the war which ended 50 years ago and of the fearful poverty at that time or of the negro question.

New England has given unceasing encouragement to men engaged in industrial pursuits. It has largely encouraged the building up of manufactures. Its papers and its people have looked upon manufacturing growth as the foundation of their wealth. Factory life, from that of the investor to that of the employe, has been popular as well as profitable.

New England has seen that its manufacturing interests received every possible encouragement in the way of community enthusiasm, in the way of political consideration and in constant encouragement of all its people to realize what manufacturing means for the development of wealth and the creation of employment.

In the South, on the contrary, we have had entirely too much criticism of manufacturing interests. Theoretically, the South has talked encouragingly about manufacturing, but its papers and its politicians have denounced with unsparing vigor those who believed in a protective tariff. They have referred to the manufacturers of the country as "robber barons." To the utmost of their ability in these directions they have discouraged the people of the South from investing in manufacturing or becoming interested or identified as employers or employes in manufacturing.

All that has been accomplished in the South in its industrial upbuilding has been despite this handicap of unceasing criticism of those who favored a protective tariff, and of manufacturers who, according to these criticisms, were the only people who were the beneficiaries of a tariff for protection. Cotton mill men were denounced as the employers of babies; mill owners have been referred to in public speeches throughout the land as though they were slave drivers, holding the whip over their operatives, and comparatively few Southern papers or Southern people have fought to uphold the honor and integrity of these cotton mill men.

We have not yet in the South created an atmosphere thoroughly favorable to manufacturing. This section can raise money with which to start a bank or to trade in real estate, but the man who tries to raise money at home to develop manufacturing enterprises meets with many rebuffs and with much indifference. It is only by the hardest kind of work that he can succeed in finding the capital needed for new enterprises. This is because the spirit of the people has not been thoroughly aroused and made enthusiastic for manufactures, as is the case in New England.

The difference in the wealth created in the two sections—one through the highest development of industrial activities and the other through more limited industrial progress—finds an apt illustration in the statistics of savings banks.

There is probably no other way in which the general wealth of a community can be better gauged than by its savings banks.

Connecticut, with a population of 1,200,000, has in its savings banks—largely, of course, the property of its factory people and of others whose accumulations are made possible by factory development—\$316,000,000. The savings banks deposits of that one little State of 4800 square miles of territory could buy out the entire manufacturing business of Georgia and have \$58,000,000 left over. Or they could buy the combined manufacturing business of Arkansas, Florida and Mississippi and have \$71,000,000 balance left on hand. Connecticut savings bank deposits could buy every manufacturing

enterprise in the State of Texas and have \$33,000,000 to spare.

The savings bank depositors in the tiny State of Rhode Island have \$83,000,000 of deposits to their credit, which is enough to buy out every factory in the State of Mississippi, or every factory in Arkansas, and still have a considerable balance to their credit.

But when we turn to Massachusetts, with 8000 square miles of area, or less than one-seventh as much as Georgia, we gain a new conception of the meaning of industrial activity in the creation of wealth as expressed in savings banks deposits. The savings bank depositors of Massachusetts now have to their credit in savings banks alone a total of \$917,000,000, an amount sufficient to buy at their combined capitalization the entire manufacturing interests of Georgia, North Carolina, Texas and Mississippi, and still not quite exhaust the amount to their credit. The aggregate capital invested in the manufacturing of these four Southern States is \$914,000,000, or \$3,000,000 less than is to be found in savings banks of Massachusetts mainly owned by the working people of that State.

In the light of these figures, is it not time for the South to examine itself and see wherein it is falling short of doing the things which would bring to it a wealth as great as that of these wonderfully thriving New England centers of activity? Are the people of the South willing to say that they are less enterprising and have less virility and ability to achieve things than the people of New England? Are they willing to count themselves as inferior to New England men in constructive and productive activities?

The people of the South are just as eager for wealth and all that it means in power and in material blessings and in the things which can be achieved by the use of wealth as are the people of New England. But are they willing to concentrate their activities in brain and muscle to this work to the extent that New England people do? Are they willing to put aside preconceived notions based on political fetishes and create in the South that kind of industrial atmosphere which will make the people of this section realize that there is more profit and just as much honor in the running of a factory as there is in the running of a farm; just as much honor and more profit to the man who in his blue jeans suit can achieve the largest results in the handling of machinery as there is to the man who sits behind the counter and deals in money as a banker? Are the people of this section yet ready to admit that the manufacturer who takes the raw materials of this section and out of them creates employment and wealth is doing a vastly higher work for his fellow-man and his State than the lawyer or the politician?

If the South has not yet reached this stage in its industrial development, it is not yet ready for its largest achievements. Until it has created this atmosphere, not of theoretical commendation of manufacturing, but of a real spirit of the people in enthusiastic co-operation in creating manufacturing enterprises, it will not have put itself in position to be measured alongside of the industrial life and wealth of New England.

The story is old, and has often been told in the MANUFACTURERS RECORD, but it may be worth repeating. It is said that at some great convention, when a roll-call of States was made, a representative from each was expected to tell of its advantages. One by one the delegates from different Southern States in glowing colors pictured the natural resources of these marvelously-endowed States. The delegate from Alabama told of its coal, equal in area to that of Great Britain and far surpassing that of Germany. He told of its vast iron-ore deposits hard by its coal, and of its water-powers, offering opportunities for the investment of capital. The delegates from the Carolinas told about the charms of the climate of their States, about their great resources in water-powers, in marbles, in granites and in advantages for cotton manufacturing. And so on down the line one State after another was pictured as a land of opportunities.

When the time came for the response from Massachusetts, the delegate from that State said:

"I have heard with great interest of the coal and

the iron of Alabama, of the timber of every part of the South, of the marbles and the phosphate and the minerals without end, and I have envied your section its boundless natural advantages. But as I have studied these conditions, I have remembered that Massachusetts has gone to Alabama, and to West Virginia, and to Virginia and bought its coal and its iron. It has gone to Georgia and Texas and bought its lumber. It has gone to the whole South for its cotton. It has gone to the West for its foodstuffs, and it has gathered these things together because nature gave our State so few advantages that we had neither raw materials out of which to create manufactures nor the soil out of which to produce the foodstuffs for our people. But on this artificial foundation, carrying your materials a thousand to three thousand miles, and bringing foodstuffs from the far West, we have created by the utilization of brain power a wealth so great that it dwarfs all you have yet accomplished."

Was the Massachusetts man justified in this boast? Consider the fact of the \$917,000,000 of deposits in the savings banks of that State and answer accordingly.

Mr. Wm. N. Berkeley of Annapolis, Md., under date of June 13, writes so forcibly and so directly on these points that we take from his letter the following:

It is always an inspiration to read the MANUFACTURERS RECORD—to note the insistence and persistence with which you are calling the people of the nation to realize their civic duties, and the people of the South more particularly to appreciate their marvelous industrial opportunities.

There is, unfortunately, though, in every issue of your journal a discouraging amount of evidence that to a very considerable extent, at least, your voice is as "the voice of one crying in the wilderness" so far as a really adequate response from a great part of the South is concerned.

It is true that you report in each issue of your journal the development, or preliminaries to development, of a great many industries in the South, but so often the addresses of the "moving spirits" in these enterprises show that it is not our own people that are developing them, but some individual or corporation whose address is given in New York, Pittsburgh, or even beyond the Mississippi.

There are just two things essential to the development of such enterprises—money and mind. The cry of hard times cannot with any reason come from the South now. Have not our people the intelligence to realize and the initiative to seize the wonderful opportunities that lie around them? If so, "Why stand ye here idle?"

#### WHAT AN OCALA GIRL DID.

THE Ocala (Fla.) Daily Banner, in talking about the various methods which are being adopted among the wide-awake young women of that community to secure dyes—and be it understood, of course, that these dyes are exclusively for clothes—tells how indelible pencils are now being used as raw material out of which to make a dye for dyeing stockings, and then adds to its statement, for which it editorially vouches, the following:

This reminds us that a well-known lady of this city got one of her shirtwaists stained by coming in contact with a MANUFACTURERS RECORD, so she gathered up a number of covers of that publication, from which she made a strong dye, and now has a shirtwaist of "old gold," which her friends pronounce very pretty.

Knowing the intelligent interest with which the young women of Ocala regard everything that relates to the material upbuilding of the South, we are not surprised that one of them hugged the MANUFACTURERS RECORD to her bosom with such great intensity and delight, but we are surprised that even the cover of the paper could produce a stain.

The MANUFACTURERS RECORD, we hope, has been responsible for many good things. We trust that it has been in part responsible for encouraging the development of the dye industry in this country, and so we are glad to know that an Ocala girl—and, of course, necessarily she was a beautiful one, as are all Ocala girls—was able to extract from the covers of the MANUFACTURERS RECORD a dye of such quality as to give to one of her shirtwaists an "old gold" color. If this story of the Ocala girl spreads broadcast through the country, it will be difficult for us to supply a sufficient number of copies of the MANUFACTURERS RECORD to meet the demand for this new and useful work.

Those who absorb the contents of the MANUFACTURERS RECORD find that, intellectually and financially, a good "old gold" color appears in their lives.

#### THE MAGNITUDE OF DEPOSITS IN ENGLISH BANKS.

THE virility and vitality of the business interests of Great Britain during these strenuous days of war were probably never better illustrated than in the London Statist of May 27. That issue, brimful of broad discussions of financial questions bearing on all the financial interests of the world, was, in itself, typical of Great Britain's financial power. It consisted of 288 pages, carrying a mass of information about financial interests such as can be found in no other publication in the world. It is in itself simply a marvelous expression of Great Britain's financial vitality. No financial paper in America has ever touched in comprehensiveness this issue of the Statist. A study of the financial statistics presented in that issue is rather calculated to take some of our false national pride out of us and teach us a little humility.

The aggregate assets of the banks of the United Kingdom at the end of 1915 were £1,701,620,000, or about \$8,500,000,000, as compared with £932,011,000 in 1895, a gain between 1895 and 1915 of nearly 100 per cent. Between 1880 and 1885 there was an increase of only £104,000,000, and between 1885 and 1890 a gain of £120,000,000, and from 1890 to 1895 an increase of £215,000,000. The total increase in the fifteen years from 1880 to 1895 was £435,000,000, but in the following nine years there was a gain of £769,000,000.

We have been boasting a good deal about the magnitude of some of the banking institutions of this country and the amount of their deposits. A few facts about some of the English banks are interesting as showing that there is not much danger yet of England's losing its financial supremacy to us, notwithstanding the rapid progress that this country is making.

The Statist publishes a list of 41 banks having deposits each of more than £6,000,000 at the end of 1915. Of course, the Bank of England leads, its aggregate deposits at that time being, in round figures, about \$800,000,000, though they are even more now; but the London City and Midland Bank is a good second, with deposits of nearly \$740,000,000. Lloyds had deposits at that time of \$650,000,000, the London County and Westminster Bank had nearly \$550,000,000 of deposits, while Barclay & Co. had \$450,000,000, the National Provincial Bank over \$400,000,000, and Parr's \$270,000,000. There were three other banks that had deposits each of over \$200,000,000, while quite a number had deposits ranging from \$50,000,000 up to \$170,000,000 each.

#### SAWDUST PRODUCTS.

BAKING POWDER, sugar, artificial silk, silk stockings, twine, furniture, milk bottles, rugs and "the strongest paper ever made" are some of the things which the National Lumber Manufacturers' Association of Chicago reports as being successfully produced at Madison, Wis., in the forest products laboratory of the United States Department of Agriculture.

According to this story, sent out by the Lumber Manufacturers' Association, demonstrations were recently made at Madison to the members of the association which proved amazing to them. This "sawdust" laboratory, as it is called, is producing baking powder from sawdust, and the visiting lumber people were treated to biscuits made with this powder and "sawdust sugar" instead of the use of the usual tartaric acid baking powder.

Among other things made of sawdust or converted mill waste is artificial silk. It is said that this country last year produced sawdust silk stockings to the value of \$5,500,000. The same laboratory is said to be turning sawmill waste into binder twine, rope, woven furniture, milk bottles, woven matting rugs; and likewise it is claimed that the "strongest paper ever made is produced in a simple manner from the waste of Southern pine," and it is said if the new process should be used generally, it would increase the paper production in the South 20,000 tons daily.

Tumulty says Hughes' telegram of acceptance was weak. That settles it. Good-by, Judge!



## THE COTTON MILL OPERATIVES OF THE SOUTH.

TWO classes of people in the South who have been persistently misrepresented and maligned are the cotton-mill operatives and the cotton-mill managers or manufacturers. It is hard to say which one of these two classes has been more persistently lied about and their character and their work misrepresented. The cotton-mill operatives have been presented to the country as lank individuals without either much brain power or backbone. They have been discussed as though they were slaves, in a spirit illustrated in an absolutely false statement made by a prominent minister who once wrote that they were "moved from place to place like hogs," with much other stuff of the same kind. The average magazine and newspaper reader, who knows nothing of these people, has gained the impression that they are a downtrodden race, somewhat separate from other people in every characteristic; that they are lean and lank and hungry, ill-fed, and living or existing on starvation wages. The people who have depended for information upon these misrepresentations, so vigorously put forth by misinformed men and women or thoroughly dishonest agitators and "reformers for personal revenue," have apparently been laboring under the impression that Southern cotton mills are full of miserable, ill-fed, ill-clad children of tender years, often referred to by these agitators and reformers as "the babies in the Southern cotton mills."

These statements have wholly misrepresented the cotton-mill operatives of the South. Among the many thousands of these operatives may be found people answering to these descriptions, just as sickly, ill-fed or ill-nourished people and people without high ethics can be found in every industry and every profession in the country. On the other hand, broadly speaking, it may be said that these cotton-mill operatives are very largely people of deep religious life, active in all their church work, and as full of the enjoyment of life as people in any other class of work; and as to their general ethical or moral standard, they will compare favorably as a whole with people in any other class of society in the country, and far above what might be found in many of the high society circles of the foremost cities of the country.

These people are of native stock, almost wholly pure Anglo-Saxon blood, and capable of high development, mentally and physically. Among them will be found people who do not measure up to this standard, just as will be found in every other grade of life and in every other line of employment in this or any other country.

Shortly after the ending of that fearful curse, Reconstruction, which was more disastrous to the South in many respects than the war itself, this section began the development of its cotton-mill interests. In the early 80's a number of mills were built by companies having limited capital. These companies could provide only the most moderate accommodations for their employes, but in those days most of the people who went in the cotton mills were desperately poor, as was nearly everybody in the South. Many of them had come out of their little huts in the mountain regions of the Carolinas and Georgia anxious and eager for any employment that would give them the opportunity to make a living. The homes which they found in the cotton-mill villages were as good as those they had left, and often better, for in the mountain regions of the States named, where desperate poverty had ruled, where railroads and industrial interests had never penetrated, the conditions of living for a large proportion of the people for the first fifteen or twenty years after the war were excessively bad. And yet they were not, however, worse than a large proportion of operatives in industrial interests such as cotton mills, iron and steel works and kindred enterprises in Pennsylvania, in Illinois, in Massachusetts and other Western and Eastern States had to endure.

At that time the opportunity for home betterment and the advancement of living conditions of the millions of foreigners who crowded to the industrial interests of this country, had not reached the point where other sections were much, if any,

in advance in housing their employes of these few scattered, financially weak cotton mills, whose establishment was for the first time giving to these mill operatives an opportunity for regular work.

In those early days these mill villages had no public schools, except in rare cases, for the South had not made much progress, owing to its poverty, in the maintenance of public education. The public schools that were established were only able to run a few months in the year. As the men and women of the families sought employment in these mills, in order to keep the starvation wolf from the door, they had no means of looking after the children, since there were no schools for them. These children, therefore, had to run the streets or the roads undisciplined and uncontrolled in every respect, unless they could be taken into the mills and given employment. Many parents preferred that their children should have this employment in the mills, not only for the additional family income thus obtained, but in order to keep them from running wild, with no one to direct or control them.

The work in the cotton mills done by children is not physically heavy or laborious, as many have supposed. It is hard, it is confining, because all physical work indoors is fatiguing and is hard, especially on children. It would be infinitely desirable if none of these children ever had to work in cotton mills until they had secured an education and were old enough to stand the strain without the possibility of injury, but these people were facing "a condition, and not a theory." It was a case of "root hog or die," and the generation of young folks who grew up in the South in the first fifteen or twenty years after the war had to learn, as no other people in this country ever had to do, what it meant to work or to starve, and most of them are none the worse for having learned the lesson.

The MANUFACTURERS RECORD would rejoice if no child had ever had to work in a cotton mill; it would rejoice if conditions were such that no child had to work in any industry anywhere, and it is heartily in favor of such legislation as will open the doors of schools to every child in the South and bring about conditions which will compel all to secure at least a fair education; but it recognizes that no plan has yet been evolved to banish poverty and sickness from the world, and no plan has yet been given to mankind to meet all of the hard problems which many people have to face.

In the early 80's there was such a surplus of people seeking employment in cotton mills, and the mills were so limited in their capital, that the facilities provided for homes had to be of a somewhat primitive character. Here and there, as their profits enabled them to do so, mills commenced to build better dwellings for their operatives and surround them with more conveniences. Increasing mill building caused such a growth in the demand for labor that the supply was not equal to the needs of the mills. It then became largely a struggle between the mills to secure operatives, and for economic reasons, as well as from high moral ground of betterment of their operatives, the mills commenced to build better homes and provide better facilities for work. This developed into a real rivalry, for the mills which built the best homes and provided the best accommodations secured the best operatives. Many of these operatives are of a roving disposition. They are thoroughly individualistic and independent in spirit. If they do not like the superintendent or something that he says, they are always ready to pick up and move, for some other mill in the neighborhood or not far away will be ready to give them a job the moment they land. These mill operatives do not have to look for work; the work is always ready. They do not have to put up with any bad treatment of any kind, for if one mill is badly managed or its superintendent does not treat them in the way they demand they shall be treated, they can quit at a moment's notice and in a few hours be employed elsewhere. Probably no other class of labor in America is in this respect more absolutely independent and less "bossed" than these mill operatives.

In the days when mills were few and far between, and when their own needs were so great that immediate employment in order to prevent starvation was necessary, the mill operatives had

to put up with inconveniences and many other things which today they would not endure for a second. From the mountain huts from which many of them came they advanced to the home provided by the mill a little better than the one from which they came. In place of the bare existence which they had eked out on their little mountain farms, far away from any opportunity of regular employment, they had found in the cotton mills regular employment at rates of wages that gave them a fairly comfortable living. From that second stage they have, to a large extent, advanced to much better homes, many of them supplied with electric lights, with bathrooms, and all other modern conveniences, and surrounded by a plot of ground sufficient for vegetable and flower gardens to any extent they desire to work outdoors. The rivalry of the mills to provide better homes has resulted in some remarkable mill villages, with dwellings furnished to the operatives which would be a revelation to millions of people living in the tenement-houses of the great cities of the East and West.

For several years the News of Charlotte, N. C., employed a very intelligent young woman to devote her entire time to visiting the cotton-mill operatives of that State and writing of them exactly such news as appears in the society columns of leading dailies of the larger cities. She visited these operatives in their homes, wrote the stories of their entertainments, of their picnics, published their pictures, and lived in and among them in such a way as to know them in their homes, in their work and in their social life.

To this issue of the MANUFACTURERS RECORD that correspondent, Miss Lena Rivers Smyth, who for several years thus reported the doings of the cotton-mill operatives, contributes an illuminating article about the cotton-mill people of North Carolina, typical of the mill industry of the whole South. The pictures which illustrate her story are but a few out of thousands equally as interesting which could be gathered. These pictures show something of the mill operatives. They show their amusements, their picnics, their church gatherings, their Bible classes, their bands, and some types of homes, past and present. They show some rather robust-looking folks and some whose good looks would attract attention in any circle of society. A healthier, heartier, jollier-looking set of people than these pictures show, which are types of many cotton-mill operatives of the whole South, it would be difficult to find in any circle anywhere.

Because these cotton-mill operatives have been as badly misrepresented as the cotton-mill manufacturers, the MANUFACTURERS RECORD feels that the story which it presents by Miss Smyth, illustrating types of these people and their play and their religious activities, is due them and the great industry which their work makes possible in the South.

Some years ago it was the privilege of the writer, in company with R. C. Hoffman, the then president of the Seaboard Air Line, and others, to accompany in a visit to the cotton mills of the South Mr. William C. Lovering, a leading New England cotton manufacturer, afterwards a member of Congress, on the first visit which he and several associates, comprising a committee of the Arkwright Club of Boston, made to the South. As Mr. Lovering entered a cotton mill in the Piedmont section and studied the operatives, he threw up his hands and said:

"You have here exactly the same kind of cotton mill labor that New England had 50 years ago, the sons and daughters of native Americans from the surrounding farms. They were the finest operatives New England has ever had, and if any one ever suggests that the mill operatives of the South cannot become equal in skill to the operatives now working in New England, you can simply reply that this is saying that the native Anglo-Saxons found in Southern mills, as 50 years ago the same class were found in New England mills, are inferior to the lowest grade of foreigners now found in the mills of New England."

That was the tribute paid by one of New England's greatest manufacturers, and the more mills he visited the more deeply was he impressed with the cotton mill operatives of the South.

## PACKING-HOUSES NEEDED IN THE SOUTH.

MR. J. M. BARR, former president of the Seaboard Air Line, and one of the most progressive workers for the development of the South which any railroad in this section ever had on its official staff, has issued a pamphlet containing a number of letters written by and to him in regard to the necessity of developing livestock raising in the South if this section is ever to attain the degree of prosperity to which its natural advantages entitle it.

Mr. Barr, who is now living at Terra Ceia, N. C., deals mainly with the situation in that state. In letters to officials of the North Carolina Experiment Station he contrasts the abounding agricultural prosperity of Iowa with its per capita of wealth of \$3539, with the per capita of \$797 of North Carolina. Mr. Barr takes the position that this difference is largely due to the livestock industry of Iowa, and to the lack of its adequate development in North Carolina, and the reason for the latter he attributes largely to the lack of packing-houses in that State. His letters are a plea to the Agricultural Experiment Station to co-operate in the establishment of a packing plant at Raleigh, in order to furnish a market for hogs and cattle, and thus broaden the interest throughout the State in livestock production.

Mr. Barr says that until a market is created for hogs and cattle by the establishment of such plants there can be no large increase in the production of livestock. He quotes a neighboring farmer, who, in reply to the question why he did not grow hogs, said: "We cannot grow hogs here because we cannot sell them," and he reports that while live hogs were selling at above ten cents in Chicago, only eight cents could be secured at this point for dressed hogs, and but a limited number could be sold at that price, and he points out that owing to the lack of marketing facilities for corn, the farmers of the State will not increase their grain production, just as farmers cannot be induced to increase their livestock business until there is a market for livestock.

In one of the replies from Mr. R. S. Curtis, Animal Husbandman, Beef and Cattle Investigator of the Agricultural Experiment Station, the following remarkable sentence appears:

Raleigh does not have an established hog market, and in lieu of this fact cannot see any argument for a packing-house as long as this condition exists, and we have at present only 1.24 hogs per farm to be marketed. My idea in giving you this information is not to discourage the hog-raising industry, for certainly this would be an unwise policy. With 15 or more years' experience, however, I have always noticed that the production of livestock precedes the establishment of a market, such as you contemplate, to furnish an impetus to the industry.

In this statement Mr. Curtis has put the cart before the horse, and has indicated a woeful lack of knowledge in regard to economic development. If hog-raising is unprofitable under existing conditions, and no packing plant will be established until hog-raising has reached large proportions, then doomsday will come before North Carolina gets the packing plant, for hog-raising is not going to increase so long as farmers lose money in raising hogs. The proposition is so simple that a grammar school boy can understand it. On the other hand, men of vision and energy would quickly realize that the building of a packing plant in such a farming district as Raleigh could easily be made to cause a large increase in livestock production. The market must be created for the product, or the product will never be raised. If there were no market for cotton, no cotton would be produced.

The bankers of many Southern States have shown much interest in encouraging the boys of the South to go into hog-raising. They have agreed, in many cases, to lend the boy, on his individual credit, enough money to buy a hog and to pay back the loan out of the proceeds of the hog when sold. This is wise; it is helpful to the boys and to the South, but of what avail will it be to increase the raising of hogs if they cannot be raised to profit? It would be well for these bankers to consider the feasibility of establishing packing-houses in various parts of the South, in order

to create a profitable market for hogs and cattle, for, until a ready market for them is provided it will be difficult to bring about general production of livestock and a proper diversification of crops.

Considerable progress has been made during the last two years in livestock growing, but the South is still far behind what it should be doing. The packing-house is an essential factor if success is to be attained in the increase of Southern livestock, and without this there cannot be the broadest general prosperity.

A stock-raising conference is to be held at Moultrie, Ga., June 27 and 28, this place having been selected because of the influence which the establishment of its packing plant has had upon the development of stock-raising in the nearby territory and the interest which it has aroused throughout Georgia; indeed, it might be said throughout the entire South.

It is important in this connection to note, as reported in the MANUFACTURERS RECORD last week, that Armour & Co. have arranged to establish a packing-house at Jacksonville capable of handling 200 head of cattle, 50 hogs and 200 sheep a day, equipped with the latest improvements, and, though started on a small scale, can readily be increased as the business develops. The local representative of the Armours in an interview said:

It will be difficult for the average citizen of the State of Florida to foresee the effect that the establishment of even a small Armour packing establishment is going to have on the business and farming prosperity of this section generally.

Commenting on this, the Florida Times-Union adds:

One great drawback to the effort to induce our farmers to take up raising of beef cattle, hogs and sheep has been that there was no nearby market of sufficient magnitude to encourage them to embark in the industry. The improvement of Florida beef cattle and hogs and the increase of our flocks of sheep, the eradication of the cattle tick, the enactment of a stock law, the better supply of the meat markets of the State, all are brought nearer to accomplishment and made possibilities of the near future by this move of the Armour people.

It is possible that this move of the Armours in establishing a plant at Jacksonville may be followed by some of the big packing-houses of the country establishing similar plants in other parts of the South, and if Southern men are slow in taking up this opportunity, it is to be hoped that others from outside will come in and utilize the chance to help the South to live at home by increasing its production of live-stock and thus widen its whole agricultural prosperity, and that means the widening of its industrial and railroad activities.

Widespread interest is being aroused throughout the South in the subject of packing plants, and the matter is being investigated at many points. At Andalusia, Ala., a plant has recently been built at a cost of \$100,000, the money all being subscribed, according to the Birmingham Age-Herald, by the business men of that town and neighboring farmers. The Age-Herald also reports that plans are on foot in several other Alabama counties to build packing-houses. The success of the plant at Moultrie, Ga., has stimulated other parts of that State to look into the packing-house situation, and some of the leading business men of Augusta are taking an active interest in endeavoring to work up local enthusiasm to a point of building a packing-house.

These are but signs which indicate how the South is turning to this important question, so closely allied to the raising of more hogs and cattle, and upon the livestock industry of the South must depend the broad, permanent prosperity of agriculture in this section, as in all others.

AND now let's have a campaign free from dirt and mud-slinging. Two Christian gentlemen are running for the Presidency. They represent opposite views on many economic and other governmental questions. On these questions the issue should be settled without campaign abuse or vilification. And every man should vote according to his convictions and not according to his prejudices.

## CENSUS OF GAS INDUSTRY.

PRELIMINARY figures have been given in the Census Bureau's report covering 1284 establishments in 1914, of which 232 were located in the South, as compared with 1296 establishments listed for the whole country in the 1909 census. Products to the value of \$220,237,781 were manufactured in 1914, against \$166,814,371 in 1909, an increase of \$53,423,410, or 32 per cent. The mileage of mains also increased from 45,119 in 1909 to 58,727 in 1914, or 30.2 per cent.

The accompanying table gives number and classification of establishments, and classification, amount and valuation of the different products manufactured in 1914 and 1909, together with their percentages of increase over 1909:

COMPARATIVE STATISTICS OF THE GAS INDUSTRY, 1914 AND 1909.

	1914.	1909.	P. C. Increase—
Total number establishments, (1)	1,284	(1) 1,296	-9.8
Number and classification of establishments according to kind of gas produced:			
Carbureted water gas....	427	338	26.0
Straight coal gas....	274	335	-17.9
Mixed coal and water gas and coal, water and oil gas....	156	153	2.9
Oil gas (including in 1914 61 producing Pintsch gas and 4 producing Biau gas)....	150	180	-30.6
Acetylene....	165	154	7.1
All other (chiefly gasoline) gas....	112	135	-17.1
Products.			
Total value.....	\$220,237,781	\$166,814,371	29.6
Gas:			
Cubic feet (thousands)....	203,730,191	150,835,793	35.1
Value.....	\$175,065,930	\$138,615,309	26.3
Straight coal gas:			
Cubic feet (thousands)....	10,509,946	19,985,253	-47.4
Value.....	\$10,726,514	\$18,065,841	-40.6
Carbureted water gas:			
Cubic feet (thousands)....	90,017,725	(3) 81,144,568	10.9
Value.....	\$74,516,534	(3) \$70,802,780	5.2
Mixed coal and water gas:			
Cubic feet (thousands)....	86,281,339	40,775,283	111.6
Value.....	\$72,012,021	\$36,953,543	94.9
Oil gas:			
Cubic feet (thousands)....	16,601,805	8,688,860	91.1
Value.....	\$15,044,509	\$12,111,348	24.2
Acetylene gas:			
Cubic feet (thousands)....	(2) 137,964	25,186	447.8
Value.....	(2) \$2,511,634	\$361,348	596.1
All other (chiefly gasoline):			
Cubic feet (thousands)....	181,412	216,643	-16.2
Value.....	\$254,718	\$329,339	-20.5
Coke (for sale):			
Bushels.....	114,091,753	82,049,683	29.1
Value.....	\$8,719,910	\$5,723,215	52.4
Tar (for sale):			
Gallons.....	125,938,607	78,339,880	60.6
Value.....	\$3,252,756	\$1,875,549	73.4
Ammonia liquors (for sale):			
Gallons (16-oz. strength)....	50,737,762	37,277,864	36.1
Value.....	\$1,235,442	\$725,702	70.2
Ammonium sulphate:			
Pounds.....	6,216,618	(4)	....
Value.....	\$134,196	(4)	....
Hydrocarbons:			
Gallons.....	953,759	1,054,230	-10.5
Value.....	\$36,902	\$44,509	-19.2
All other products, value (including selling value of gas purchased for sale)....	\$20,815,871	\$12,786,697	62.5
Receipts from rents and sales of lamps and appliances....	\$10,977,774	\$7,043,390	55.9

(—) Decrease.  
(1) In addition, gas products amounting to \$158,743 in 1911 and \$261,802 in 1909 were produced commercially by 6 establishments in 1914 and by 4 in 1909 which were engaged primarily in other lines of manufacture.

(2) Includes number and product of 36 establishments distributing 115,511,000 cubic feet of acetylene, valued at \$2,192,328, in containers (no distributing mains).

(3) Includes 1,726,082,000 cubic feet straight water gas, valued at \$1,289,031.

(4) Statistics not available.

The relatively large increase of 91.1 per cent. shown for oil gas is said to be due chiefly to the increased production in the Pacific Coast States. The growth in the output of acetylene, which amounts to 447.8 per cent., is attributed mainly to the increased distribution of this gas in containers. The decrease of 47 per cent. for straight coal gas is due to the fact that during the period between the two censuses many of the companies changed from straight coal gas to mixed coal and water or carbureted water gas.

In addition by-product coke-oven gas, amounting in 1914 to 61,364,375,000 cubic feet, valued at \$6,000,583, against 15,791,220,000 cubic feet, valued at \$2,600,211, in 1909, was manufactured and used for illumination and for domestic fuel. The gas purchased by gas companies is largely retort coke-oven gas, a portion of which is enriched and resold by the gas companies, while the remainder is sold as purchased.

IF you see an editor who pleases everybody, there will be a glass plate over his face and he will not be standing up.—Thomasville Times.

We are still standing up.



THE SOUTH'S IRON AND STEEL POTENTIALITIES SHOULD BE DEVELOPED NOW.

THE success of the Gulf States Steel Co., which, without basing its operations on war business, but confining them almost exclusively to ordinary commercial trade is now able to show earnings at the rate of about \$2,000,000 a year, indicates the possibilities of well-located, well-managed steel enterprises in the South.

It is unfortunate that some of the other iron-making concerns in the South did not years ago follow the example of the Gulf States Steel Co. and build steel plants. This is the steel age rather than the iron age, and the companies which are confining themselves exclusively to the manufacture of pig-iron, permitting other concerns to get all of the benefits of turning this pig-iron into the finished product, would seem to be limiting their field of activity and profit.

Conditions in the steel trade of the country make this a crucial time for the enlargement of steel-making in the South. This section will miss one of the greatest opportunities in its history if it does not utilize the present situation to bring about a larger development of its steel-making interests by men of capital and experience in steel-making.

There are many men in the West and in the East who have accumulated great fortunes through iron and steel-making who know the business from beginning to end. They know its opportunities, and likewise are aware of all of its dangers. In the South there are many opportunities which are not being utilized. There are a number of idle furnaces which could be taken over to advantage by men thoroughly familiar with this industry and made the basis of large operations. There are a number of going concerns which, if controlled by men of big capital and large experience in steel-making, could be made the foundation on which to base great enterprises worthy of the South's natural advantages and commensurate with the expansion of the iron and steel trade of this country and of the world. It would be a serious misfortune for the South if it should permit this opportune time to pass without a large increase in its iron and steel interests.

Notwithstanding the South's unusual advantages, it has not kept pace with the country in the production of iron. The East and the West have gone ahead with amazing rapidity, expanding their iron and steel business at a rate which makes the progress of the South seem even worse than a snail's pace. Indeed, as compared with the rapidity of the growth of iron and steel in other sections, the South is steadily slipping backwards, and not even advancing at a snail's pace. The reasons for this are generally understood, but they need no longer halt Southern development. The present situation is ripe for better things, and, as this is the opportunity for the South to unite for hard work for the development of iron and steel-making, so it is an opportunity for capitalists who have money seeking investment and for iron and steel people who have accumulated wealth out of this industry in other sections to turn their attention to the iron ore and coal resources of this section.

Every word spoken in behalf of National Preparedness is in reality a word in behalf of the supreme necessity of developing iron and steel-making and kindred interests in the South. This country will not continue the almost criminal folly of permitting 90 per cent. or more of its steel business and all of its munition-making interests to center in the East and the West, wholly dependent upon Lake Superior ores, as in the past, or upon a limited supply of foreign ores, since both of these sources of supply could be instantaneously cut off at any moment. The South and the Southwest alone offer the opportunity for the development of iron and steel-making free from this danger. However great may be the profits which iron and steel-makers are now securing from their investments in the East and the West, it is impossible for them to safeguard the future of their industries or their money except through the utilization of the resources of the South for the establishment of iron and steel plants. This is the only security which they can

have against a day of evil, which might come upon us when least expected.

Remembering that the billions of capital invested in iron and steel plants dependent upon Lake Superior ores might at any moment be subject to destruction by war through the capture of the Lake Superior iron district or the blocking of the Soo Canal, it is scarcely conceivable that intelligent men controlling this wealth will much longer remain uninterested against this danger.

Every word which they utter in behalf of national preparedness by the Government will ring true in proportion as these capitalists do their part in widening the industrial development of the country; for national preparedness can be only a visionary theory so long as the nation depends, as at present, upon one source of ore for practically its entire steel output.

Until the railroad people, the bankers, the iron and steel men and the National Government awaken to the seriousness of this situation and co-operate in bringing about larger iron and steel developments in the South and Southwest they will show that they have not yet taken seriously to heart the lessons that should have been learned from the awful carnage in Europe.

These are the conditions which the South faces; therefore, this section is given the opportunity for presenting its advantages to the capitalists of the country in a stronger light than ever before. These capitalists should be interested from the standpoint of profitable operations of such plants, and from the practical viewpoint that in helping to establish these industries they are contributing to national safety and to the insurance of their own individual wealth as against the possibilities of war.

THE THOMAS IRON COMPANY.

THE Thomas Iron Company, of Easton, Pa., which has been one of the leading producers of pig iron in that State for the last 60 years, was erroneously referred to last week as being owned by the Bethlehem Steel Company. In calling attention to this oversight, Mr. Elbridge Walker, the general sales agent, writes the MANUFACTURERS RECORD:

"The Thomas Iron Company is one of the independent foundry iron manufactories in the East, and has been manufacturing pig-iron and serving its customers since the date of its organization in 1854."

A BAD BREAK BY A VIRGINIA COLLEGE.

THE American Protective Tariff League recently sought to secure from American universities and colleges a list of the members of the senior class of 1916, stating that it was desired to send to them literature on the subject of protection. Hampden-Sidney College of Virginia, according to a letter to the MANUFACTURERS RECORD from the American Protective Tariff League, was the only college in the United States which refused to receive protective tariff literature.

Rev. H. Tucker Graham, D.D., president of Hampden-Sidney, in declining to comply with the request, stated that he was so entirely out of sympathy with the purposes of the American Protective Tariff League that he did not desire to encourage its propaganda even to the extent of furnishing the names of students to whom this literature might be sent.

It is to be regretted that any college in the South, and especially one which has so noble a history to its credit as Hampden-Sidney, should be controlled by a viewpoint so narrow that its president is not willing for its students to study the economic problems which affect the welfare of the nation. If it is desired that these students should know the truth, in order that the truth might make them free, then surely the president of the college should not require them to study only the statements that he and his chosen professors might make to them on economic or other questions.

Education is a good thing, but if education is to be so one-sided that no one is to have the privilege of seeking to know the truth, then it would not count for much. Hampden-Sidney has placed itself in an unenviable position in taking this stand.

POLITICS IS THE POLITICIAN'S BUSINESS, AND HE IS ALWAYS "ON THE JOB."

BECAUSE of the fact that politics is the politician's business, and that he is "on the job" all the time, he exerts a far greater influence than his importance or his value to the country justifies.

This point is brought out in a letter from Mr. C. W. Howard, director of the Chattanooga Industrial Board, in the course of which he says:

When you read the story "The Tariff An Economic Question," as told by the Youngstown Sheet & Tube Company, on page 48, your issue of June 1st, it increases our faith and respect for our kind (the right kind). Every voter in the country ought to read this. It is so fair, so plainly told, and so convincing, and all because it is the essence of all the plans offered by all the worth while countries of the earth.

It offers no argument for or against, only pleads that a question so vitally important be taken out of the hands of theorists and politicians and placed with "the right kind of tariff commission, permanent and secure against partisan attack."

To secure this a line up of forces is necessary. The business men on one side, and the politicians, whose stock in trade is being assailed, on the other. The fair-minded business men are greatly in the majority; the difficulty to be encountered the business man is on his job occasionally, the politician is there all the time, day and night, week in and week out, year after year, because that is his business.

This is the doctrine that the MANUFACTURERS RECORD has been proclaiming for many years. It has sought to arouse the country to the question of considering the tariff and other economic problems of this kind separate and distinct from all political questions.

The Free Silver Issue, the advocacy of which tremendously injured the South and kept capital out of this section, swept like a craze over much of the country, not because of any economic force in it, but because it was political, and because the politicians who were "on the job" all the time were working it for all they were worth.

Free trade or a low tariff is against the welfare of the South, and of the whole country, but, because it has been a political fetish, thousands of people in the South have voted for it merely because they wanted to keep straight with their party, and doubtless thousands in other sections have voted for protection for exactly the same reason.

If the business man, whose welfare depends to a large extent upon the handling of economic questions, without regard to party affiliations, was as active and vigorous in working for his business in this particular as the politician is in working for his business, which is politics, and nothing else, there would be an entirely different situation in this country.

The people of the country, who comprise most of its population, do practically all of its business, include all of the men at work, and to whom the country, from every point of view, belongs, as distinguished from the politicians, who are seeking only their individual welfare, playing politics instead of being statesmen, permit the politicians to rule the country, even if they ruin it. From the crossroads county politician all the way up through town, city, state and national government, the curse of politics runs its course, and the men who should have most to say about the management of governmental affairs in reality have the least.

It is time for the business men, and this means every man who works with hand or brain or money, as opposed to the politician, who works mainly with his mouth, to follow the suggestion of Mr. Howard and be "on the job" and see that his business and the country's are not ruined merely to help make a living for the politician.

SELLING POTASH MADE AS BY-PRODUCT IN CEMENT PRODUCTION.

THE Security Cement & Lime Co. of Security, Md., expects to put into operation this week the first unit of its potash plant, in which potash will be saved as a by-product in Portland cement making. The other units will be completed and put in operation in the near future. The company has already made advance sales of this potash on the basis of current prices.

# Nashville Leads the Way in the South's Campaign for Government Nitrate Plant at Muscle Shoals

"Nashville, June 10.

"Editor Manufacturers Record:

"Permit me to thank you very cordially for the convincing and inspiring telegrams sent by you to me as the Mayor of Nashville and to our Commercial Club, made up of some 2000 prominent citizens, which had under consideration last Friday evening the question of getting ready to demonstrate to the President and to Senators and Representatives from all sections of the country the wisdom of establishing at Muscle Shoals, in Alabama, the recently-authorized hydro-electric plant for the manufacture of nitrates, one of the essential ingredients of powder.

"These messages were read in open meeting and, because of the patent and strong facts which they set forth, contributed no little to the strengthening of the position taken by all of the speakers. The meeting was by far the greatest one ever held by the club. I believe this was due to the feeling that by selecting this favorable location for such a necessary plant the central South could more efficiently serve the entire nation in time of need than in any other known way. It may be true that in time of peace the great power developed may become incidentally serviceable to this section in the improvement of agricultural methods, but even if this becomes true, the nation at large would still benefit if the whole country's supply of articles for food and clothing were thereby increased.

"The most practical steps were taken to assemble, at another meeting to be held early in July, the plain, common-sense business reasons which present themselves, showing that this site, with the enormous cheap power which will be developed, is simply a heaven-given one, which cannot longer go unused if this Government is to avail itself of its great natural advantages without regard to where they may be, and we believe that the President, who appreciates the greatness of the South, will not be deterred by any sort of reason from calmly considering the strong ones which will surely be shown him.

"ROBERT EWING, Mayor."

The meeting held at Nashville on June 9, to which Mayor Ewing refers, had been called by the Commercial Club of that city with a view to arousing an interest in the whole central South in the importance of securing the location at Muscle Shoals of the proposed Government nitrate plant. Birmingham, Memphis and other cities were represented by leading men, who pledged the active co-operation of their communities in furthering this important undertaking.

It should be borne in mind while studying this proposition that the hydro-electric possibilities at Muscle Shoals are far greater than all the developed power at Niagara, and, as stated in a letter to the MANUFACTURERS RECORD from Hon. Thurston H. Allen of Florence, the improvement of the Tennessee River would "insure the navigation of the river between Chattanooga and Paducah, a thing the Government has been working for for the last 25 years. The greatest asset the Tennessee Valley has is this river, yet we do not seem in any way to appreciate that fact."

The Tennessee River is an asset of almost priceless value. It can be made to develop an amount of power which in itself would enormously strengthen the material development of the great territory tributary to that river. But it would do more than this, for from that territory would radiate prosperity and progress to the entire South.

The MANUFACTURERS RECORD rejoices that the suggestion made by it last week, that this undertaking should be regarded as of vital interest to the South, and not to a limited area, represented the spirit of the Nashville people and of those of other districts who are co-operating in this movement.

In giving in detail the proceedings of the meeting, the Nashville Tennessean closes its report with a statement of resolutions passed and some telegrams in connection with this work, as follows:

"Whereas, the United States Congress, in passing a bill to increase the efficiency of the military establishment of the United States, most wisely and patriotically included a provision for the establishment

of a nitrate plant in order to make our country independent in times of war of any foreign source of materials for the manufacture of explosives and in times of peace in part free the farmers and planters of the United States from the humiliating burden of the Chilean saltpeter monopoly, which bill the President, with his constant and statesmanlike watchfulness for the political and economic security of the United States, has signed, and,

"Whereas, this nitrate provision in the country's plans for preparedness is so markedly supported by Germany's example of so notably employing her natural resources for national defense, and especially in the example of her taking the nitrogen from the atmosphere not only to manufacture her needed explosives, but also for the fertilization of her food crops, thus making Germany independent of her supply of nitrates from Chile, and,

"Whereas, the United States in its plans for preparedness for national defense has very wisely made the provisions of the statute broad enough to provide as far as possible for the economic development of the natural resources of our country, which will not only contribute to national defense in time of war, but to the nation's wealth and prosperity in time of peace;

"Therefore, the commercial organizations of the cities of Nashville, Memphis, Birmingham and Chattanooga, in joint convention assembled on this, the 12th day of June, 1916, declare:

"(1) That the ordnance and munition plants constructed by the Government for national defense and security should not be concentrated in a narrow strip of country from two to three hundred miles in length and extending on an average of less than 100 miles in the interior of the country along the Atlantic Coast as conditions exist today over 95 per cent. of the ordnance and war munitions are manufactured within this narrow area from Connecticut to Virginia, and that in selecting the location for the Government nitrate plant primarily for national defense, the President will select that location which will not only be strategically safest from a military and naval standpoint in times of war, but will at the same time contribute in the highest degree to the economic development of the country and public welfare in times of peace.

"(2) We hereby declare the incontestible fact that there are to be found within the drainage area of the Tennessee River more of the natural resources and materials necessary for the national defense of our country in times of war, and which will contribute in a higher degree to the economic prosperity and welfare of the country in times of peace than are to be found in the drainage area of any other river in the world. In the watershed of the Tennessee are to be found cotton, steel, iron, coal, coke and the by-products of coke manufacture, zinc, lead, aluminum, copper and sulphuric acid, and in the valleys drained by the French Broad, the Clinch, the Hiwassee, the Holston and Little Tennessee rivers is to be found the choicest and most abundant supply of hardwood timber in the United States, and at Muscle Shoals is to be found the greatest possible and potential water-power development located wholly inland on any river in the United States, and even greater than the hydro-electric developments possible at Niagara Falls with the limitations at Niagara fixed by the treaties of the Canadian and American Governments.

"(3) The agricultural importance of a Government nitrate plant primarily for national defense in times of war is not second, but of much greater importance to the national welfare in time of peace. How important nitrogen and phosphoric acid are to the farmers and planters of this country, especially east of the Rocky Mountains, and particularly to the farmers and planters of the South, is measured by the commercial fertilizer bill of the United States for the year 1914, amounting to \$177,000,000, and of this amount \$78,000,000 was paid for nitrogen, \$65,000,000 for phosphoric acid and \$43,000,000 for potash, and of the total bill, the farmers and planters of the Southern States contributed nearly \$100,000,000, and it is estimated by the United States Department of Agriculture that Southern farmers and planters for the year 1914 used for fertilizer

purposes fully 1,000,000 tons of cottonseed meal as a nitrogen fertilizer. The estimated cotton acreage in the Southern States for the year 1914 was 36,000,000 acres. If air nitrogen fertilizers instead of cottonseed meal fertilizer had been used on the cotton farms of the South in the year 1914, the saving would have been \$51,000,000, and we most respectfully, but insistently call the attention of the President of the United States and of Congress to the practically inexhaustible deposits of phosphate rock located nearby Muscle Shoals, in the State of Tennessee, and we declare that there is not to be found in the world so great a water-power and so large a supply of phosphate rock in such close proximity to each other.

"(4) Finally, we declare that the nitrate provision passed by Congress for a Government nitrate plant and Muscle Shoals as a location for that plant are a challenge to the courage and genius of the entire South, and on our part we hereby accept that challenge and pledge ourselves to work in co-operation not only with every other interest in the South, but in co-operation with every section of the country for the selection of Muscle Shoals as the most available and suitable location for a Government nitrate plant in the United States.

"In furtherance of the foregoing declaration, be it

"Resolved, that a convention representing the agricultural, commercial, financial, manufacturing and other interests of the Southern and middle Western States be and hereby is called to convene in Nashville, Tenn., at noon on Wednesday, July 12, 1916, to consider this important subject, and to devise adequate ways and means for the consummation of the object sought to be attained.

"Resolved further, that a committee of 12 men from the four cities represented at his meeting be appointed to make the necessary arrangements for the holding of said convention on the date named, and to invite the attendance and co-operation of representative citizens of the States and sections designated, to the end that a full discussion may be had and a free expression of opinion on this all-important subject may be given."

The resolutions as offered were amended upon motion of C. P. J. Mooney to provide for a committee of 15 instead of 12 to look after the details of holding the convention in question, six of whom to be residents of Nashville and three representing the cities of Memphis, Chattanooga and Birmingham.

The following telegrams were passed between Mayor Robert Ewing and R. H. Edmonds, editor of the MANUFACTURERS RECORD, with reference to last night's meeting:

"Nashville, Tenn., June 9, 1916.

"Mr. R. H. Edmonds,

"Manufacturers Record Baltimore, Md.:

"Commercial Club, Nashville, holds tonight exceedingly important meeting participated in by prominent, well-informed men from cities adjacent to Muscle Shoals, Ala., with view of collecting all reasons why this great water-power should be developed and the recently-authorized Government hydro-electric plant established there to furnish nitrates for munition purposes in times of war and for fertilizer in time of peace. Its central location in the country, proximity of iron, steel, phosphate rock and sulphuric acid and splendid transportation facilities highly commend it. Your local correspondent should secure for you a full report. Richly worthy of it. All facts developed will be submitted to President Wilson.

"ROBERT EWING, Mayor."

"Baltimore, Md., 4.25 P. M., June 9, 1916.

"Hon. Robert Ewing,

"Mayor, Nashville, Tenn.:

"Acknowledging your telegram I had already wired Commercial Club enthusiastic commendation of tonight's meeting, and will be glad if you will present this to the meeting. The MANUFACTURERS RECORD has for many months been unceasingly working through its editorial columns, through personal correspondence with members of Congress and the President and with the leading financial people of the country to impress them with the supreme importance of developing in the



central South iron and steel and nitrate and chemical industries as the only possible safety to the nation in time of war. Until these things be done, all talk of national preparedness is but a visionary dream.

"At present nearly 95 per cent. of the steel made in the United States is from the Lake Superior ore district, all of which passes through the Soo Canal. This supply of ore could be instantaneously cut off in time of war by the capture of that district or by a few sticks of dynamite placed in the Soo Canal, through which more than 50,000,000 tons of ore annually pass. Almost the entire munition industry of the country and all of the battleship building is confined to a limited area from Massachusetts to Virginia, representing not over 2 or 3 per cent. of the area of the country. So long as these conditions last it is absolutely impossible to make national preparedness a reality. Until this condition is changed the country will be lulled into a false sense of security by the creation of a navy or the establishment of an army, for neither army nor navy could be provided with guns or ammunition if the Lake Superior ore supply were cut off, or the limited area on the Atlantic Coast in which munitions are now made were captured, and both of these things are entirely feasible, and so recognized by every navy and army officer. The central South and the Southwest alone hold the key to the situation and offer a means of safety to the nation. The building of a nitrate plant and of an armor-plate plant and other munition industries in the central South is absolutely essential to the nation's safety if we would ever become involved in war, and the nation would be guilty of criminal folly if it failed to appreciate this situation and act accordingly.

"RICHARD H. EDMONDS,

"Editor Manufacturers Record."

Secretary Manier of the Commercial Club was also in receipt of a telegram last night from Mr. Edmonds, which was read before the gathering.

On all sides last night were heard words of commendation from visiting representatives for the fine work done in connection with the instigation of the movement and the working up of the details of the Nashville Commercial Club. That the preliminary labor done by the club officials in putting on foot the movement and in securing the hearty endorsement and support of the fine commercial bodies from neighboring cities that so effectively aided in making a success of the initial gathering in behalf of the movement speaks eloquently of the effective energy and the enterprise of the local club.

Mayor Ewing in a letter to the Commercial Club on this subject closed with some suggestions which should be considered by the whole South, as follows:

"As you are aware, the small iron furnaces to the west of Nashville, with one exception only, have been out of blast for some time past. Now, under this rise

in the price of iron, the furnace at Clarksville, in Montgomery county; the one at Van Leer, in Dickson county, and one of the two at Allen's Creek, in Wayne county, have all gone into blast, making a quality of iron much desired by Northern foundrymen as a mixture with the strong and sluggish-flowing irons of that region. Directly and indirectly Nashville is sure to feel the good effects of this revivification.

"If benefits at any time can truly be said to arise to this country from the terrible war prevailing in Europe, these should come from a more active and more intelligent utilization by ourselves of our own natural wealth, our powers and our raw materials, converting these latter into useful commercial articles in the most intelligent and economical way.

"Germany has taught us our lesson. Possessing as we do the raw materials, the necessary capital and certainly a sufficient ingenuity of invention to at least follow the way Germany has blazed out, we ought to see the good sense in this interruption of trade which war has brought about of studying more closely the means whereby Germany has rendered every other country so dependent upon her for so many valuable commercial articles. Let us in the South at least go more vigorously to work and see if we cannot declare our commercial independence of her and all other nations not alone for many of the things which we use ourselves, but become a more successful competitor with her in all of the markets of the world. Surely we can do it.

"I might cite a local and forcible illustration of how easy it is to do this if we employ the intelligence we have. Some years ago the United States imported from Germany the ferro-phosphorus which it needed. Latterly our friend, Mr. Jeff Gray of Maury county, utilizing his skill, has been manufacturing at his Rockdale furnace this material of a very much higher grade than that made by Germany, and presumably at a much lower cost. The output of this Rockdale furnace was not sufficient to supply the demands, and he was forced, in order to do this, to lease the furnace at Goodrich, in Hickman county. Here certainly is one instance occurring right here at home in Middle Tennessee of an intelligent utilization by ourselves of our own raw materials lying at our very door. There is no earthly reason why progressive men like Mr. Gray should not take hold more strongly than we are doing of the more important dyestuff situation and supply ourselves and others with these necessary dyes, so much needed in the proper coloring of so many articles of manufacture, the raw materials of which are produced in the South. I fully believe that the reasons to be advanced by these gentlemen who are to address the meeting if put in concrete form and presented to the President will secure from him the most careful consideration, for I chance to know that he loves this section of our country and wants to help us avail ourselves of every natural advantage possessed."

## ORGANIZATION GREATLY BENEFITS FRUIT AND VEGETABLE INDUSTRY.

### Fruit Exchange of Martinsburg Brings Enhanced Profits to Producers in West Virginia Section.

Martinsburg, W. Va., June 10—[Special.]—By securing in its first year of operation the best prices ever received for apples in Berkeley county, West Virginia, the Martinsburg Fruit Exchange thoroughly demonstrated the great value of Southern growers of fruit and vegetables marketing their products through co-operative central selling organizations.

Before the organization of the exchange, in June of last year, it was the custom for buyers to go from orchard to orchard, and naturally paying for the fruit the lowest price necessary. They also had to put their own graders in charge of the packing, all of which was a crude and unsatisfactory method both for the buyer and the grower. When the exchange organized it immediately started a system of standardizing and classifying the packing of apples and put its own men in charge of this work. This standard packing has not only enabled the growers to secure better prices, but also has made it possible for buyers to purchase large quantities of apples of standard size.

In discussing the features of the exchange and its methods of operation and in touching upon the subject

of fruit growing in Berkeley county, President H. L. Alexander of the exchange said:

"A number of the prominent growers decided in the summer of 1915 to get together and organize an exchange for the benefit of the fruit growers. We realized that the fruit industry was a big thing in this county, and was going to grow larger with each season, inasmuch as the bulk of the trees are comparatively young. We also realized that the growers did not have time to look after the selling of their fruit during the picking season. In June, 1915, the Martinsburg Fruit Exchange was organized, and it handled a large part of the apples during the past season, and obtained for the apples as much as \$3.25 per barrel f. o. b. loading station in Berkeley county. This was the best price that had ever been received for apples, and we feel sure that the exchange had a great deal to do with bringing about this condition. Especially, as earlier in the season, before the apples were picked, buyers were around offering \$2 a barrel for apples, and later went up to \$2.50 before they could get any, and in some instances paid more for some varieties outside of the exchange. Had

not the exchange been started, we feel quite sure that the bulk of the apples would have been sold in the fall of 1915 for \$2 per barrel.

"The exchange inaugurated a system of sending out capable men, who superintended the packing of the apples in the orchard, and thus the exchange was able to guarantee the pack, and this helped a great deal to get a better price. We also found that the best class of buyers preferred to deal through the exchange, for the reason that they could get 5000 or 10,000 or even 25,000 barrels of a certain variety and of a similar pack, and thereby save the expense of sending agents from orchard to orchard, and also of having their graders in the orchard, which had been the custom in the past.

"There has been a survey made of the orchards in Berkeley county by the agricultural department of the State, located at the university, and they found that there were over 500,000 apple trees in this county. This means that when these trees have obtained their full size it is possible for them to average five barrels to a tree (some trees have had as many as 15 barrels), which will mean 2,500,000 barrels of apples, and putting the price low, say \$2, means an income of \$5,000,000 to this county alone. This affects everybody in the county, directly or indirectly, for the reason that barrels have to be made and a great many people have to be employed to cultivate the orchards and spray them and pick the fruit. There has been employed during the picking season in the largest orchards as many as 100 people at one time, and this gives some idea of the good that it does. It has also helped to enhance the value of real estate very much, for the reason that there has been a great deal of money made out of orchards, and when the people sell their crop and have a good lot of money they use it to buy more land or they loan it.

"Three orchard companies in this county, the North Mountain Orchard Co., McKown Orchard Co. and the Grimes Golden Orchard Co., paid dividends last fall ranging from 13 to 25 per cent., besides paying all taxes and improvements and laying aside money for expenses for the coming 12 months. These are all young orchards, and if they can pay such dividends when the trees are young and have not reached their full size, they certainly will be able to pay much larger dividends in the future. If the apple orchard is well cared for, and as a tree dies a new tree is planted in its place at once, there is no reason why an orchard cannot become a permanent and profitable investment. There is no occupation that is more healthy than that of fruit growing.

"Apples will keep longer than any other fruit, either out of or in storage, and those raised in a mountain section color better and keep better than those raised on level ground. The apples raised in this county last year were sold in all the big centers of population, and a number in the apple district in New York State. We can ship apples in carload lots to New York city for 27 cents per barrel, and it costs \$1.50 per barrel from Spokane, Wash.; or, in other words, it costs six times as much to ship a box or barrel of apples from the State of Washington to New York city as it does from West Virginia. Half of the population of the United States lives within 350 miles of Martinsburg, so you can see that we are practically at the doors of the markets.

"All of this means a great thing for Martinsburg, which is the county-seat and now has a population of about 12,000 people, and is located on the main line of the Baltimore & Ohio Railroad and Cumberland Valley Railroad. The Western Maryland Railroad is now in the county, and has surveyed and bought the right of way most of the way to Martinsburg, and we believe that inside of a year this line will reach our city, too."

MILES C. SHOREY.

### The Cotton Movement.

In his report of June 9, Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 314 days of the season was 11,857,785 bales, a decrease under the same period last year of 3,170,570 bales. The exports were 5,143,558 bales, a decrease of 2,802,700 bales. The takings were, by Northern spinners, 2,754,892 bales, a decrease of 203,797 bales; by Southern spinners, 3,612,439 bales, an increase of 681,303 bales.

# Welfare Work in Cotton Mills of North Carolina—Progress Operatives Have Made

TYPICAL OF CONDITIONS THROUGHOUT THE SOUTH.

By LENA RIVERS SMYTH.



ROSE GARDEN.

Indicating flower culture at Chadwick-Haskins mills. A few years ago this spot was a field of corn stubble. The little girl is a daughter of one of the employees of the mill.

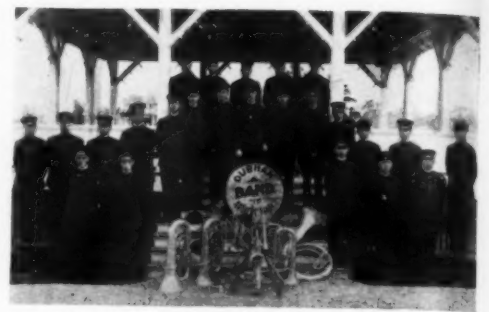
In spite of all that has been written in criticism of the cotton mills and the poverty of the mill operative, which has served to make excitable reading matter, there is no industrial institution in North Carolina doing more to uplift its employees than the cotton mills. The active growth of cotton manufacturing in the South did not begin until about 25 years ago, and naturally the mills had to get a start before thought could be turned to any channel other than making the business a success. It was only a little more than 10 years ago that welfare work took root, when a few of the larger and more progressive mills instituted plans to make the living conditions of their operatives better.

The work of the pioneers proved to be an asset rather than a loss, for every dollar wisely spent to make a better and more contented citizen returned to the mill in better production and less worry with shiftless help. By degrees other mill men caught the spirit, until there is scarcely a mill of any size whose officers are not doing something to make their people more comfortable and contented, although in some cases it may be on a small scale. In its entirety, welfare work is not looked upon by the men who promote it as charitable and philanthropic, but rather as an educational movement. And several years ago perhaps education was needed more among the mills than any other line of work, because cotton-mill work not absolutely requiring an educational training, a large percentage of the uneducated whites who grew up on the farms when schoolhouses were few and far between, and who were failures as farmers, flocked to the mills, because, in many instances, it was their only avenue to a livelihood. They were the poor forgotten whites, neglected,

uneducated and untrained, with nothing but willing hands with which to make a living; and their lack of training or education was not the inability to learn, but the lack of opportunity. While scattered on the farms and in the mountains they attracted no unusual attention, but when seen collectively in the mills their ignorance has caused comment and criticism which has been directed largely to the mill owners.

There are three things which all the mills must be credited with, whether they do anything further toward helping the people or not, and that is they all build schools, and in many instances schools much superior to the ones in adjoining districts; they erect comfortable cottages, which are rented cheaply—from 10 to 25 cents a room a week, and in some cases given free—and they assist in building churches. There are, however, some mills located in towns where schools were already built that have not built separate schools, but in most cases they do. One reason is that the city school is not often convenient to the cotton mill child, and the other is that the child from the mill village is timid about mingling with other children.

To say that the cotton mills are doing more for their people than any other industry sounds incredulous to those who have no knowledge except a reading ac-



DURHAM HOSEY MILL BAND.

Bands as well as baseball teams are a great favorite among cotton-mill employees.

were scarce, as the help came from the farms unskilled in mechanical work, and, in fact, unskilled in any work. When a man wanted to enlarge his mill or build a new one—and new ones were springing up over the Carolinas and Georgia—rather than wait to train a set of help he would make a raid upon his neighbor's mill and lure a part of his help away. Naturally the better class of citizens stayed where conditions were best. This practice, however, became rather unpopular, as it had an unwholesome influence upon the operatives in encouraging a sometimes inherent desire to be shiftless and float from mill to mill.

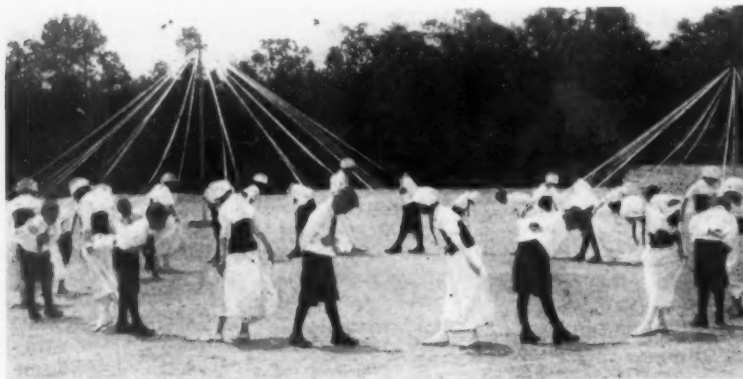
While an education is not necessary to become a cotton mill operative, much more efficiency is obtained from operatives of a trained mind. The mill men have seen this, and it was through them that the first compulsory school law was placed upon the statute books of North Carolina. With the system of schools in the mill villages there is not a normal child reared in the mills of this State who is not able to read and write, or to have the advantage of some educational training. For the benefit of those who have to stop school when they reach the age when they may start to work, many of the mills have instituted night schools, where the ambitious boys and girls can pursue their studies further. Like many uneducated parents, a number of cotton mill fathers have not been active in forcing the children in school, but this class is in the minority in several communities. For instance, in Gaston county, where fully one-half

of the population is cotton mill help, the record from the books of the County Superintendent is that the mill schools showed a better attendance before the compulsory law went into effect than some of the country districts. The Pilot mill school, in Raleigh, has won the silver cup for several consecutive years for the best average attendance of any school in the city.

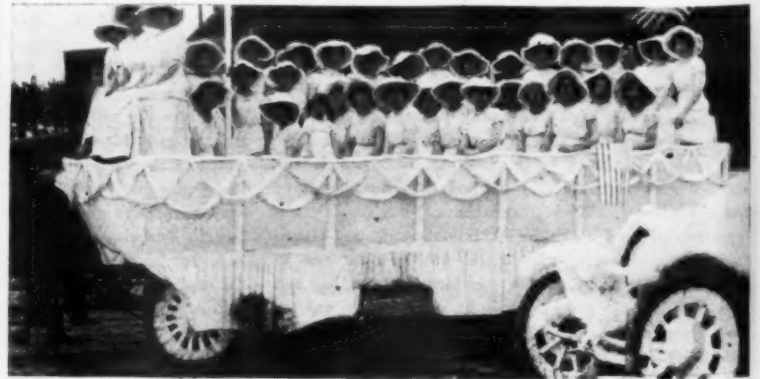


SUNDAY-SCHOOL PICNIC IN COTTON-MILL PARK, FAYETTEVILLE, N. C.

quaintance of the mills. But it is nevertheless a fact, as instances given herewith will convincingly show. But back of it all lies a reason. The average cotton mill man is no better and no worse than the average business man in other vocations. To begin with, the cotton mill men largely brought it upon themselves. In the early stages of the industry trained employees



MAY-POLE DANCE BY THE CHILDREN OF THE SCHOOL AT THE CONE MILLS IN GREENSBORO, N. C.



COTTON-MILL GIRLS AT KANNAPOLIS, N. C., IN FOURTH OF JULY PARADE.





"STEPPING STONES"—FIRST THE MOUNTAIN HOME.



THEN THE FIRST COTTON-MILL HOME.



AND FINALLY THE HOME THEY BUILT THEMSELVES.

The State has so far been able to supply funds for only a four months' school term in the different counties, but the districts where mills have been located have often been the gainers, both in securing a better building and a longer school term. Some mills defray the expenses of a six or eight months' school. During the past year a State-wide wave to wipe out adult illiteracy swept from East to West, and the mills came in for their share of the work. Mr. D. Y. Cooper of Henderson, however, inaugurated a very unique plan about two years ago, whereby he offered a certain sum of money to the Sunday-school teachers for every adult that they would teach to read and write.

In the summary of welfare work in the State among the mills there are many different methods. While practically all of the mills pursue the idea of schools and church work, yet each mill that is doing more than this has some special pet work emphasized as the idea of the manager as to the best means to reach the desired end—to make a happier and better citizen. A few of the mills employ trained workers, but as most mills in North Carolina are comparatively small, the expense of a trained worker, together with the school teachers, has been too heavy. Consequently, some of them combine the two when such a happy combination can be formed, or carry out a work through the superintendents, the churches, Y. M. C. A. institutions and other channels.

Credit for the first and most extensive welfare work in the State belongs to Caesar Cone of Cone Brothers, Greensboro, N. C. To describe all the features of the work that the Cone Brothers have done would require a chapter of itself. About a dozen or more years ago they employed a young woman to take charge of their villages, and through her work and the co-operation and interest of the owners a marvelous work has grown, including one of the very best school systems in the State. There is not a child in any town receiving more benefits from the school than the cotton mill children in the Cone mill villages.

Aside from the regular literary courses, domestic science is taught in the various grades, as well as sewing, along practical and fancy lines. Girls learn to make dresses when they are just out of kindergarten, and later fancy work is taught for household and other adornment. There are garden clubs for the boys and girls, a kindergarten for the tots, music for the larger girls and boys which comes free with the course, athletic clubs for boys and girls and libraries for the grown-ups as well as the children. There are also

domestic science and sewing classes for the girls who work in the mills, and for the mothers also. Sanitation is emphasized and the love of the beautiful encouraged. In fact, almost everything that can be thought of which is practical to do is done for and with the people.

Special efforts to make the village attractive have been made. To this end Mr. Cone has a private nursery, from which plants and shrubs are furnished to the people. The landscape gardener has been called into service in laying off some of the streets with space between the sidewalk and the drive, where flowers and shrubbery have been planted. Two years ago the operatives were given 3000 packages of seeds, 3000 bulbs and 3000 shrubs to plant about their premises.

The mills maintain one of the best stores in the State, there being in the market a refrigerating plant

and this has served to stimulate pride and ambition. Some of the things made by these people would do credit to the best exhibits in large fairs.

The health of the people being an important factor, not only from a humane standpoint, but as a business proposition, the progressive mills have waged campaigns for more sanitary conditions. Some of them have made annual expenditures to safeguard the health of the operatives. Practically all of the new mills provide sanitary drinking fountains, and a good many of the old ones have installed them. The mill with dirty walls and floors is now classed as a back number.

The conditions around the mills and throughout the villages of the progressive mills of the State are not only models of cleanliness, but are attractive with flowers and vegetable gardens. Various plans have been inaugurated by different mill owners to get the operatives to take a pride in the premises. Prizes are sometimes offered for the biggest pile of trash, or for the cleanest premises, or the greatest improvement from year to year. A few of the mills have inaugurated the plan of "clean-up day," the Cliffside mills at Cliffside being the first to start this movement, although practically all of the mills furnish teams for the purpose of hauling trash and litter away from the villages. The tin can has come in for its share of reprobation, and in the up-to-date village it is practically a thing of the past.

The mills at Roanoke Rapids have carried on extensive plans to eliminate malaria and typhoid, and are the first mills to show the result of their work in the increased production of goods. In the summer of 1913 an epidemic of malaria and typhoid besieged the town. Mr. S. F. Patterson and his brother, John L. Patterson, called United States

Government experts into service and, following their suggestions, something like \$30,000 was spent in drainage and oiling ditches and marshy places. After one year the resident physician made a blood test and found one person out of 31 with malaria, while the test the year before had shown one out of seven affected, and there was not a single case of typhoid. An increased production of 65,105 pounds for 26 days' work in September, 1914, was shown, against 25½ days in September the year before. The latest investigation, according to dispatches from State experts, is that this is one of the most healthful places in the State.

The mills at Spray, N. C., are also carrying on an extensive welfare work, which includes a vigorous campaign against insanitary conditions, and they have



BESSEMER CITY SCHOOL BUILDING, BESSEMER CITY, N. C.

which cost \$9000. No place in the State has a market so up to date as the one which furnishes meats to the employes of these mills. But the people are not compelled to buy from the store. They can take a car to the uptown markets or trade at a competitive store right in the village.

The mills operate a bakery with an output of 1500 loaves of bread daily, part of which goes to supply the city trade. A year ago an up-to-date dairy was started to furnish pure milk to the employes. The families in these mills total about 300, but the old-time custom established some time ago of giving a turkey or a ham to each family on Christmas still prevails. Many other mills have adopted this plan. A couple of years ago a community fair was established,



METHODIST CHURCH AND SUNDAY-SCHOOL, CAROLEEN MILL, CAROLEEN, N. C.



BAPTIST CHURCH AND SUNDAY-SCHOOL, CAROLEEN, N. C.



TYPE OF BUNGALOW BUILT BY THE WISCASSETT COTTON MILL, ALBEMARLE, N. C., FOR MILL OPERATIVES.

amazing figures showing a great decrease in the number of cases of different diseases since the work was started.

There are a number of mills that employ trained nurses to look after the people and see that the sick are well cared for, and the health of the community is guarded. The mills of Roanoke Rapids have co-operated with the town and built a hospital, which is supported on the co-operative plan. Each family pays a few cents a week, and in return receives free treatment at the hospital should such be necessary.

Probably the form of welfare work in most general use is the giving of prizes for flower yards and fine flowers, because this is something that the smallest of mills can do, and a good many mills have adopted this plan. Not only have the flowers inculcated a love for the beautiful and an appreciation of cleanliness, but having them and caring for them has served to make many a family more contented and thrifty.

Although a number of mills have done creditably well along this line, the Chadwick-Hoskins mills of Charlotte have, without question, made the greatest success in flower growing. The operatives living in the villages of the mills of this company are on the top wave of enthusiasm, and the yards they keep and the flowers they raise are among the best and most attractive to be seen anywhere. From early spring, in February, when the violets come, until the frost catches the chrysanthemum, in November, there is something blooming in their yards. Many of the families have handsome potted plants for winter home decoration. Their specialties, however, are roses and chrysanthemums. Last year there were exhibited several mammoth chrysanthemums, eight inches in diameter, which these people had grown. Community flower shows are held in the fall, when prizes are given for the best flowers, and each village competes with the other in trying to have the best show.

Mr. R. M. Miller, Jr., president of the Elizabeth mill of Charlotte, has some very well-laid plans for village betterment. He also gives prizes for good premises, but requires that year-round conditions shall govern. Prizes are given for front and back yards. The result of this has been that the families in this village pay as much attention to making the back premises attractive as they do the front.

The Woman's Betterment Association of Gastonia, N. C., started a co-operative work among the cotton mill women of that town some time ago by organizing branch clubs at each mill which work under the direc-

tion of the association. For the past several years the women of this club have been making a hobby of raising chrysanthemums, until they have become experts, and they are passing on their knowledge and enthusiasm to the cotton mill mothers. At the last floral fair the flowers raised by the cotton mill women attracted much attention. The association has certain rules to which each member must adhere and whereby the premises are to be kept orderly.

On account of the fact that the cotton mill operative, being generally a production of the country, wants his vegetable garden, the open field, to a large extent, has been selected for mill sites, although a few have selected woodland spots. The cleared field has necessitated planting trees for shade. A few mills have planted fruit trees or furnished orchards from which the people get summer fruits. Good garden space is always given, the average size lots being from one-quarter to one-half an acre, while the distance between the cottages is generally from 100 to 125 feet. As most of the mills are located either in the suburbs of a town or in the country, the operatives have the advantage of keeping cows, and in some cases pigs, although the majority of the mills will not allow hogs to be kept on the mill property.

It is impossible to enumerate every mill that is doing something to aid the operatives, but among those doing something extraordinary are the mills at Kannapolis, N. C. This town was built about seven years ago by Mr. J. W. Cannon, and now claims something more than 5000 people. The mills are generous in providing things for the comfort and pleasure of the people, but the two most important structures are



THE LOUISE MILL, OF CHAIN OF CHADWICK-HOSKINS MILLS, CHARLOTTE, N. C.

the Y. M. C. A. building for the boys and the Martha Washington Inn, or home for the girls. The Y. M. C. A. cost \$20,000, and is a handsome building, fully equipped with reading-rooms, games, baths, swimming-pools and a large auditorium. The home for the girls is the only thing of its kind in the South. It is equipped with electric lights, baths, sewerage, running water, hot and cold, in each bedroom, and it is steam heated and furnished attractively. All the running expenses of the house are furnished by the mill company, even to the laundry of the bed and table linen. A matron has charge of it and furnishes board to the girls for \$3 a week.

A mill community deserving special mention is the Cliffside mill at Cliffside, N. C., a little mill town at the foothill of the mountains, in Rutherford county. Practically everything that can be done in reason is in store for the upbuilding, comfort and pleasure of the operatives. The natural surroundings are full of



TYPE OF BUNGALOW BUILT BY THE WISCASSETT COTTON MILL, ALBEMARLE, N. C., FOR MILL OPERATIVES.

beauty, and with a clean and sanitary village and a general interest in flower growing about the cottages and civic pride in general, the village occupies an ideal place among industrial communities.

Adjacent to this village are two others, the Caroleen and Henrietta mills, both of which are enterprising and progressive. Last year the employees living in these two villages had the finest gardens to be seen in the State.

Outdoor recreation is generally promoted. Nearly every mill has its home baseball team, and in communities where mills are thickly located leagues have been formed and annual schedules made. The boys play on Saturday afternoons, when the whole village turns out to see "their own boys" in action. Some mills have basket-ball teams for the girls and tennis clubs for both boys and girls. In many instances a wooded spot near the mill is converted into a park or recreation grounds. The lake, river or reservoir from which the mill gets its water supply serves as a summer pleasure resort for boating, swimming and fishing. A few rustic seats, swings for the young people and a pavilion for the village band, where they may gather on Sunday afternoons for a sacred concert, are appreciated features that almost universally prevail. A good old-fashioned picnic, where each family brings its basket and all the children and eat together, or an ice-cream supper, or perhaps a box party, where the young men buy their best girl's box, in order to make money for their churches or fraternal organizations, are among the favorite diversions.

The Caraleigh mill of Raleigh started a welfare work a year or more ago. It converted the mill grounds into a playground for the young people, bordering the grounds with pecan trees, which in time will yield nuts for the kiddies at Christmas. The overseers after that were never troubled as to the whereabouts of the doffer boys, for they put the swings, the acting and whirling poles into double service. Within a few months the large ropes had to be replaced with wire cables. Space was also given for a baseball park, and tennis and basket-ball courts were made.

The way the operative has learned to appreciate better things is illustrated in the style of cottage built by the new mills today compared with the old ones. At first it was a plain structure of something like two or three rooms, closely built, but seldom plastered or ceiled. This, however, was an improvement on the tenant hut or mountain hovel occupied by the people who migrated to the mills. By degrees the cottages



WOODMEN OF THE WORLD CAMP OF OPERATIVES AND EMPLOYEES OF THE LOUISE MILL, CHARLOTTE, N. C.



A COTTON-MILL BARACA CLASS, CLIFFSIDE MILLS, CLIFFSIDE, N. C.



## One Hundred and Thirty-Two Years of Public Welfare Work



GROUP OF GIRLS IN WORKING CLOTHES AT THE CARALEIGH MILL, RALEIGH. NOON HOUR.



HOME FOR BOARDING GIRLS AT KANNAPOLIS. Each room has hot and cold water, house equipped with baths, electric lights, water and sewerage, steam heated; all running expenses paid by the mills; board for girls, \$3 a week.



NIGHT SCHOOL AT THE DURHAM HOSIERY MILL.

were improved until the neat cottage from three to five and six rooms was built, painted and ceiled or plastered. Within the past few years the mills are varying from a former monotony of architecture. The Wiscasset mill of Albemarle has stepped beyond any mill in this section in the erection of bungalows for the operatives.

Within the past three or four years the installation of sewerage systems in the cotton mill villages has occurred. Mr. R. M. Miller, Jr., of Charlotte was possibly the first man in the State to take a step this far ahead when he placed sewerage in the cottages at the Elizabeth mill, but within the past year or two several mills have this added convenience as well as a safeguard to the health of the community.

The mills are fast improving, and, in fact, have made wonderful strides within the past few years, but, notwithstanding this fact, there are a number of mills that are not in step with modern times, and it is this class generally that are selected as types by the critics. Some of them may deserve criticism, but even in such places their worst conditions are not fairly represented in pictures that have gone into public print purporting to be typical of Southern mill conditions or as the average or general conditions in these mills. It is the worst and most isolated cases that are selected for public display generally by the sensational writers, and the result as a rule is that mill conditions as depicted by magazines are grossly exaggerated. In fact, I have seen some articles published about Southern cotton mills in which there was about as much truth as there is soap around a Gypsy camp.

In these days of new commercial organizations and activities, it is interesting to know some details of one Chamber of Commerce which has been working for the good of its city and State for nearly a century and a third. This organization is the Chamber of Commerce of Charleston, S. C. When it took possession of its new home last week, a former president, J. Adger Smyth, gave an interesting historical resume of its activity for 132 years. He said:

"Few Charlestonians are familiar with the past history of this old Chamber of Commerce, and, therefore, cannot appreciate its intimate connection with almost every crisis that befell this city during the 132 years of its incorporation.

"This city and our Chamber were almost twins in the dates of their incorporation, and never once has this tie been broken, nor Charleston's call for counsel or assistance once failed of receiving a prompt and loyal response from this body of her merchants.

"It stirs one's emotions and makes one's heart beat quicker as one reads the record of those old meetings of this Chamber, when men, whose names are now revered and honored, were the actors and movers in such momentous questions and to note how bravely and wisely they decided them.

"The Chamber was incorporated February 6, 1784, but it certainly existed in 1774, as resolutions adopted by it on June 2, 1774, regulating charges, bills of exchange and usages of trade were published in Well's Register for 1775.

"Commodore Gillon, its first president, was a man of remarkable courage and heroic enterprise, commanding, as he did, the little navy of South Carolina.

"Among other incidents, we find a letter from Thomas Jefferson, dated May 22, 1784, asking full information in relation to the commerce and productions of South Carolina and Georgia, and the burdens on our trade being acted upon by the Chamber and a full reply being sent to Mr. Jefferson, then in Paris, and a copy being sent to Mr. Jacob Read, then a member of the United States Congress.

"On the 16th of April, 1791, the Chamber entertained the President, George Washington, then visiting Charleston. An address was presented to him by Edward Darrell, then president of the Chamber. This address and Washington's reply are both on record. On the 7th of May the committee of the Chamber conducted the entertainment of President Washington in the Exchange Building as recorded 'to the great satisfaction of the members,' and arranged (as recorded) 'elegant emblems of agriculture and commerce.'

"On the 4th of February, 1828, a special committee of 10 was appointed from the Chamber, consisting of Messrs. Black, Johnson, Aiken, Adger, Edmonston, Barnett, Tupper, Magwood, Rose and Cardozo, to consider and report upon building a railroad to Augusta. The committee reported favorably and the Chamber unanimously adopted the report, a charter was obtained and engineers employed to survey the route, who reported on March 15, 1828; the railroad was organized, directors elected on May 12, 1828, half of whom were from the committee of the Chamber named above.

"On the 30th of March, 1871, when our State lay prostrate and crushed under ignorant and rapacious negro rule, sustained by the United States army, a full meeting of the Chamber assembled and unanimously called a meeting of the taxpayers of the entire State. Messrs. Geo. A. Trenholm and W. D. Porter were the delegates from the Chamber to this memorable convention, assembling in Columbia. Hon. W. D. Porter was elected president, and its proceedings and results have become a part of the history of South Carolina.

"In March, 1877, the Chamber appointed a committee to go to Washington to represent to President Hayes the deplorable condition in our State and to urge the recognition of the Hampton State government and the establishment of honest rule, as the only way to restore peace and prosperity. This mission was successful.

"These are only a few instances, taken here and there, from many others to show the prominent and

active part taken by the Chamber on every occasion in advancing the prosperity of our city and State.

"Perhaps no other labors of the Chamber, have advanced Charleston as a port to a greater degree of importance than the building of the jetties and the deepening of the channel leading to the Atlantic Ocean.

"At the close of the war between the States, owing to obstacles purposely laid in our harbor, the deepest channel showed a depth of only 18 feet at mean high water. To remedy this the United States engineers recommended to Congress the building of a system of jetties at or near the harbor's entrance.

"To do this required appropriations of at least \$4,000,000. This was the herculean task undertaken by Capt. S. Y. Tupper, the president of the Chamber of Commerce from 1870 to 1891, aided by Capt. F. V. Abbott, the United States engineer in charge, and ably seconded by Major George B. Edwards, a vice-president of the Chamber.

"No one can appreciate, who did not share them, the wearisome anxieties and the apparently insuperable obstacles through which and over which Captain Tupper persevered and finally succeeded. Disappointed again and again in his appeals for necessary appropriations, at every overthrow, like Antaeus of old, he rose only the stronger in his determination to succeed. I know of what I am speaking, for I was a member of the Chamber of Commerce in 1867, and of the bar and harbor committee in 1878.

"His efforts were crowned with success, though he did not live to see the present culmination of his labors, a channel 600 feet wide with a depth of over 34 feet at mean high water, proved to exist beyond the cavil of any honest man, by the easy entrance and safe departure on more than two occasions of the largest and deepest draught battleships of the United States navy.

No one can question that this was the work almost entirely of the Chamber of Commerce.

"The Chamber, therefore, is entitled to still further credit.

"When the question is asked: 'Who were most instrumental in bringing the United States navy-yard to Charleston?' naturally the fundamental question back of that and underlying it, 'Who brought deep water to Charleston bar?' claims pre-eminence.

"To this there can be but one answer, 'the Chamber of Commerce.'

"And Captain Tupper and Captain Abbott realized that deep water would bring the navy-yard to Charleston.

"In January, 1890, we find Captain Abbott, who faithfully employed his great talents as an engineer for nine long, weary years, writing Captain Tupper about the certain success of the jetties, and his belief that the future navy-yard at Charleston was almost a certainty.

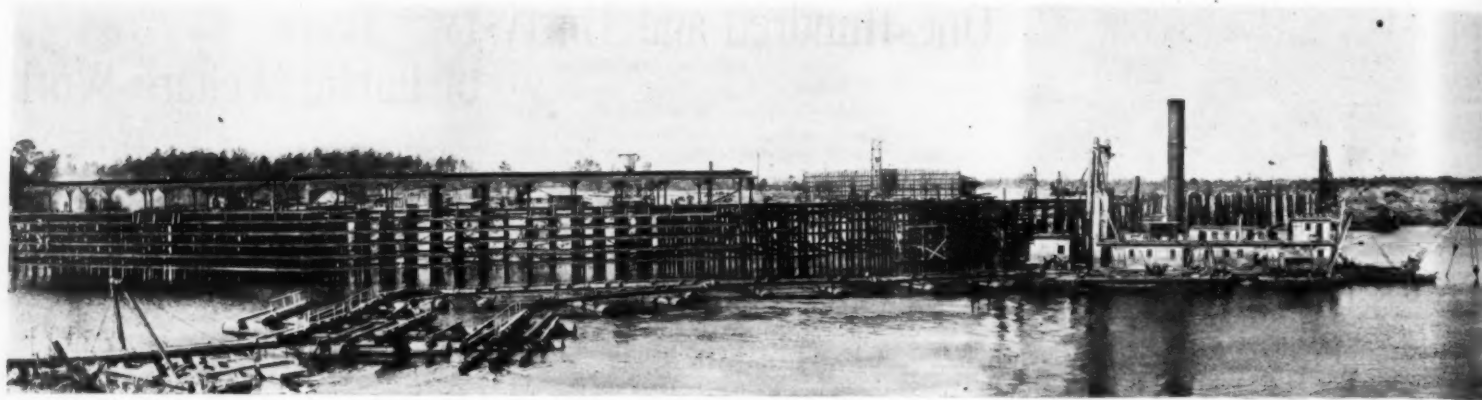
"Again in December, 1893, Col. T. P. Lowndes addresses the Chamber regarding the chances of securing a naval station at Charleston. A resolution was unanimously adopted that steps be taken at once. The News and Courier endorsed this action with the headlines 'Now for a Navy-yard.'

"So that besides bringing deep water, the Chamber has also done its share, and a large one, in bringing the navy-yard to Charleston.

"This does not in the least detract from what was done so successfully by Senator Benjamin R. Tillman, who, realizing that the psychological hour had arrived, by his wonderful skill and influence did more to bring the navy-yard to Charleston than any other man.

"This brief and very imperfect resume of the past of this old Chamber teaches us one striking lesson.

"In every one of the numerous crises of the eventful years of the first century of its existence, this body of Charleston merchants ever was animated by one spirit, 'loyalty to Charleston; loyalty to duty.' Now that we have so widely extended the scope and influence of the Chamber of Commerce of Charleston, now that we have acquired this beautiful home, let us carry with us into the present, with all its problems that must be solved; into the future, with all its uncertainties and dangers, this same knightly spirit of loyalty as our guide of life and our rule of action."



HOUSTON'S HARBOR. PROGRESS PICTURE OF CONSTRUCTION WORK ON PORT FACILITIES AT HEAD OF NAVIGATION, TURNING BASIN, HOUSTON SHIP CHANNEL—DREDGING OPERATIONS BY ATLANTIC, GULF & PACIFIC CO.

## HOUSTON'S MUNICIPALLY-OWNED PORT FACILITIES INCLUDE IMMENSE WHARVES AND SHEDS.

Million-Bushel Grain Elevator Also Planned—Great Development Under Way—Large Ocean Tonnage Already Secured.

[Special Correspondence Manufacturers Record.]

Houston, Tex., June 9.

The port of Houston has experienced a remarkable development in the year ending June 1, and this work is being continued to provide port facilities necessary to accommodate the growing commerce of the Southwest, which seeks the new inland port through Houston.

With the completion of the Houston ship channel by the Government in July, 1915, the city of Houston at once started construction of the first of a series of terminal facilities at the turning-basin or head of navigation. The first unit consisted of a longitudinal type wharf 625 feet long and 50 feet wide, of creosoted pine timbers, adjoining which was constructed a reinforced concrete one-story warehouse 416x100 feet in size. Connecting with this unit were railroad switching tracks affording connections with 17 railroads finding terminals in Houston.

The first unit cost the city \$302,471. Immediately upon the completion of this dock, wharf and warehouse the business interests of the city, acting in co-operation with the city of Houston, secured 10-day sailings out of New York direct to Houston by the steamers of the Southern Steamship Co. From the first both inbound and outbound cargoes have exceeded the available shipping facilities thus offered. Coastwise ships and oil steamers from Tampico and Vera Cruz are also making this port at this time.

Work was at once started on an immense cotton wharf to furnish facilities for economically handling the large volume of cotton which each year passes through Houston for export from the Texas and Oklahoma fields. These cotton facilities consist of one creosoted timber wharf 40x500 feet in size, located on the north side of the turning-basin and connecting with cotton warehouses or sheds, three in number, two of which are 125x703 feet each and one 125x598 feet in size. These sheds are of the latest and most approved type, usable for classing cotton as well as for storage and recompressing purposes. This unit cost \$350,000, and the wharf is fully equipped with traveling cranes, hoists and conveyors. Adjoining these cotton sheds or warehouses the city is now completing a municipally-owned switching yard, where it is planned to operate its own equipment at cost for handling cargoes in and out of the port.

Contract has been awarded and work started on unit No. 4, which will consist of a creosoted timber wharf apron 20 feet wide by 777 feet long, adjoining which will be a one-story reinforced concrete warehouse 110x777 feet in size. This unit when completed and ready for service will have cost \$375,000.

Plans have been completed and a contract will be awarded this year for unit No. 2, adjoining No. 1, on the south side of the channel. This wharf will be over 700 feet long, and will adjoin a two-story reinforced concrete warehouse. The cost of this unit will approximate \$400,000. Continuing the work with unit No. 3, the city will doubtless this year complete the south side improvements by adding an open wharf to connect units 2 and 4, facing the turning-basin, which is now 1100 feet wide on the surface. All of the completed and pro-

posed units do and will contain railroad tracks on the wharf aprons, thus affording loading and unloading from ship to freight car, or vice versa.

The city of Houston is planning to erect a million-bushel grain elevator on the north side of the channel, as the demand for such facilities is felt to be imperative.

In the last year the Government has established the harbor lines of the Houston ship channel at 400 feet, and no improvements are being constructed, either by the city or private interests, inside these harbor lines.



OCEAN STEAMSHIP IN PORT AT MUNICIPAL WHARVES TURNING BASIN, HOUSTON SHIP CHANNEL.

Two big hydraulic pipe-line dredges, costing \$400,000, used exclusively for the maintenance and further development of the channel, are gradually widening and deepening the waterway, which eventually will be 400 feet wide to the Gulf of Mexico, with a depth of 35 feet at all points. At the present time the average depth is about 27 feet.

No wharfage charge is made at the municipal terminals on the Houston ship channel. Warehouse space is provided free of cost for a certain time, after the expiration of which the usual charge is made for storage. All switching charges will be controlled with the operation of city-owned equipment. All other charges for service are made by the Harbor Commission, and will never be prohibitive. Pilotage charges to Port Houston are the same as apply at other Gulf ports, the same being based upon the draft of the vessels. Nominal charges for trans-shipment of cargoes will be made at all municipal warehouses and storage sheds, covering both inbound and outbound cargoes. No embargo can ever be placed upon the port of Houston under the present method of municipal control.

The city is now contemplating the matter of securing control of a large additional ship channel frontage, upon which to place further improvements in the future as the demands of the waterway make additional facilities necessary.

Already private interests and corporations are lo-

ating manufacturing industries and plants on property fronting on the ship channel, and from present indications many new concerns, attracted by deep-water rates and free wharfage, will find locations this year.

PAUL H. SHELDON.

## The London Statist Not Looking for Early Peace.

[London Statist, May 27.]

The fact which seems to be of the greatest importance is that Germany has now the disposal of all the resources of every country she has overrun and occupied since the war began. Practically, that is to say, Germany has at her disposal the whole of the resources of Belgium, except the little corner of which the British are in possession; the whole of the resources of the occupied provinces of France, and the whole resources of Russian Poland. Furthermore, we have reasonable grounds for believing that the German Government is not by any means mealy-mouthed; that, on the contrary, it is resolved to make the utmost possible use in its own interest of all those resources. It has been in possession of Belgium since a few weeks after the war broke out. It has been in possession of the French provinces since September of 1914. And it has been in possession of the whole of Russian Poland practically since September of last year. It seems a safe conclusion that it is using to the very utmost all those resources of every kind—coal, iron, food, the raw materials of manufacture—everything, in short, which it can extort from either Belgium, France or Poland. It is a reasonable conclusion, likewise, that it is compelling not only the large number of prisoners it has made while hostilities have lasted work for it, but that it is also compelling the people of the occupied provinces to work for it. And probably we shall not err if we assume, further, that it is reinforcing its actual fighting forces by compelling persons in the occupied provinces to serve in its armies. If all these assumptions are justified, and we see no reason why they should not be, then Germany is free, and has been free from the beginning, to employ almost the whole of her male population capable of bearing arms in fighting, and to get all the manufacturing she needed, whether of munitions or of anything else, done by the subject populations of the occupied provinces. If that be the real state of the case—and, of course, it is merely an inference from such facts as we happen to know—then the exhaustion of the manhood of Germany is not as great as is often assumed. If Germany, like England, for example, had to raise the whole of her fighting men from her own population, and also the whole of her working population, then one would be driven to conclude that the loss of life must be already telling, for it is inconceivable that she could do all that and carry on successful war in France, Belgium, Poland, the Balkans, and even in Asiatic Turkey, without feeling already the strain very severely. But if she has been able to compel the people of the occupied provinces to do most of the work, and even some of the fighting for her, the case becomes different. Of course, it is impossible to check these assumptions, because we have to grope in the dark for our conclusions. But it is well that we should realize that such information as is accessible to us does not point to a very early conclusion of the war.



# The Railroad Congestion Question

Since the elaborate discussion in last week's issue by leading business men throughout the country on the railroad situation, other letters bearing on the subject have been received dealing with the same problems and how they can be solved.

These letters, like those we published last week, are of interest to the railroad people and to the business men of the country.

## Paying Penalty of Former Blunders.

WALTER WOOD of R. D. Wood & Co., Philadelphia, Pa.

There is not the slightest doubt in the minds of anyone—railroad men included—that 20 or 30 years ago the railroad ruled things with a high hand.

Recent years have shown them how impolitic this was. Their efforts to correct the same are or can be successful. But in the meantime everyone is suffering the consequences of their past conduct.

As to the facilities they are giving to the public, especially in the matter of freighting, there is no doubt but that greater terminal facilities, both as regards space and power, would handle the traffic more expeditiously.

Before the same can be accomplished, however, larger classification yards and facilities are required more than actual terminals.

Every kind of business, in fact, has its difficulties and points of congestion, which added facilities would overcome in almost all cases.

My belief is that the railroads can, with minor changes, readily handle all business that has yet been offered or will be offered in the near future.

## "Selling in Transit" One Cause of Congestion.

W. B. ROPER, Secretary-Treasurer the North Carolina Pine Association, Inc., Norfolk, Va.

The lumber business in this section, with which we are, of course, especially informed, has suffered very materially during the past two or three months on account of the railroad congestion, and the lumber manufacturers are very much concerned over the situation and desirous of ascertaining the causes and having the proper remedies applied.

I think in some measure the trouble is due to all of the causes named in your letter, but there is one cause which is especially applicable to the lumber industry that you do not refer to and which I consider has contributed in no small degree to the freight congestion. I refer to the practice of reconsigning cars, or what is known as shipping or selling lumber in transit. By this I mean the practice that quite a number of mills and wholesalers have of shipping cars consigned to themselves to certain reconsigning points, such, for instance, as Cape Charles, Va., in this section, with the idea of making sales of the lumber while the cars are in transit. Of course, sales cannot always be made before cars reach the original point of destination, and it has frequently been the case that there has been accumulated at Cape Charles anywhere from 500 to 1000 of such cars. The same is true of other reconsigning points.

The railroads, I believe, realize that the practice has been abused, and perhaps with some influence might be persuaded to withdraw this privilege. Besides the congestion that it occasions, it is a harmful practice to the regular industry, resulting in frequently having to sacrifice the lumber and sell at absurd figures, thereby disturbing the market. I think this is one feature of the freight congestion that should be looked into quite thoroughly.

## Uncertainty as to Legislation Restricts Railroad Activities.

A NEW YORK MANUFACTURER.

We are subjected to considerable annoyance in regard to inbound freight. This began when the shipments of war material were first made. The delay seems to be

due primarily to the lack of ships and the delays in loading same. Freight has accumulated waiting to be loaded until between 3000 and 4000 cars are now held up in Jersey. These cars are held up for weeks at a time, and being withdrawn from traffic a car shortage results at other points.

This has been aggravated also by labor troubles, both in the railroads and among lighter and tug men and stevedores. The main cause, however, is the shortage of ships.

The above applies to freight inbound from the South and West to New York.

The large shipments of war material from Connecticut have swamped the New York, New Haven & Hudson River Railroad. Shipments from these points are being made by automobile trucks and boat. This road has also been compelled to put an embargo on cars coming through from the South due to above.

The present condition seems to be due chiefly to the inflated traffic due to the war shipments held up, due to the lack of ships, more than to neglect of the railroads.

While railroads did not buy much equipment in the year prior to the war, yet had not the tremendous increase in traffic come so suddenly there is little doubt that the roads could have met the situation without difficulty, so far as their end is concerned.

The train crew law probably caused some delays in local traffic, the roads holding freight until they had enough cars to pay them to move it.

There is no doubt that the continued legislation affecting business interests resulted very unhappily. It was a serious handicap to continue business with a feeling of uncertainty as to what laws might be passed which would materially change business conditions. The railroads, in common with every other line, suffered from this. This uncertainty as to what legislation may be put in force in the future engenders a lack of confidence among business interests that cannot help but restrict their activities.

## Railroads Hampered by Lack of Competent Men?

GEO. LAND, Traffic Manager Lamb-Fish Lumber Co., Charleston, Miss.

It is our belief that the railroads are not hampered so much by lack of motive power and equipment as they are by competent men. If anyone will review the operations of the Norfolk & Western, as described in a recent issue of the Railway Age Gazette, and compare this operation with any number of others, I believe the conclusion will be reached that the Norfolk & Western has been developed into a magnificent piece of railroad property not through any advantage in geographical location, but solely through the efforts of the men in charge.

## Antagonistic Legislation Responsible for Plight of Railroads.

ROBT. P. LAMONT, President American Steel Foundries, Chicago, Ill.

We, of course, have had some little inconvenience on account of inability to get cars, but, as a matter of fact, I think we have had no more difficulty than we would naturally expect under present business conditions, and we have been rather surprised at the way in which the railroads, in this territory at least, have handled the situation.

There is, of course, no question that the railroads are short of facilities. Their growth in the last five or ten years has not kept pace with the natural growth of the country. This is due entirely to the unfavorable attitude of the public toward the railroads, which found expression in the antagonistic legislation of the various State and Federal legislative and regulating bodies. The direct result of this unfavorable attitude has been that the roads have been unable to raise money at reasonable rates for the necessary extensions and additions to their equipment and other facilities.

There seems to be very little question now that public opinion toward the railroads has changed. There is a

realization that unless the railroads are prosperous and allowed to develop normally, the country itself cannot be prosperous, and there is an evident disposition to see that they are fairly treated from now on. It is true that the high-handed arbitrary methods of some of the roads were largely responsible for the unfavorable attitude of the public toward them in the past, but the distressing period through which the roads have recently gone has no doubt brought about a change in their attitude toward the public, and there is a better understanding and better feeling all around. There is an evident intention now to allow the roads to earn a fair income on their capital investment, and, with this understanding, they will be able to get money at reasonable rates and grow and develop at a rate that will keep pace with the normal development of the country.

## Faults of Railroads Pointed Out.

W. H. BONEY, Meyerhaenser Lumber Co., (Everett Branch), Everett, Wash.

In this section of the country the only congestion of traffic and the inability of the railroads to handle freight promptly occurred this winter and lasted for a few weeks.

It was brought about on account of having a few thousand cars tied up with export freight, largely munitions of war for Russia, and the large amount of snow which we had this winter, and which caused the railroads much delay in the movement of their traffic. Outside of this, the railroads have moved our freight promptly.

In regard to legislation against the railroads in this State particularly, it was brought about largely by the railroads being in politics and largely controlling our political affairs, which was resented by the people, and possibly at this time there was some legislation which was detrimental to them. The railroads in this country have been out of politics for several years, and have made their appeals directly to the Legislature and to the people, and have been treated fairly. In fact, all recent legislation by the National and State governments affecting railroads I think has been more beneficial than detrimental to them, and I am inclined to think that this class of legislation will continue.

In regard to the ability of the railroads to raise capital, I am inclined to think they stand in the same position as an individual. If they have not abused their credit, their credit remains good, and if they have abused their credit, it is poor. They can at all times get all the money they are entitled to, and when they cannot secure additional capital it is because they have handled their business in such a way that the people have no confidence in them. If they lack capital, it is not on account of past legislation nor the fear of future legislation.

## Not Experiencing Any Inconvenience.

C. V. TRUITT, President Unity Cotton Mills, Lagrange, Georgia.

There is no blockade in the South. However, I understand that the Eastern roads are badly blocked, on account of inability to get bottoms to prevent a congestion at the ports.

We are forwarding very small tonnage at this time for export; hence we are not experiencing any inconvenience.

I learn from good authority that the railroad equipment of today is very much better than it has been in the last 10 years. In my opinion, the only way to overcome congestion in extraordinary times (like the present situation) is for this Government to establish and maintain American bottoms to handle the tonnage with more dispatch, thereby relieving the conditions that exist and that will continue to exist in extraordinary times.

## Prosperity Not in Evidence in Lumber in Northwest—A Suggestion as to Railroad Troubles.

A. C. DIXON, Manager The Booth-Kelly Lumber Co., Eugene, Ore.

In our line of business, and in the Northwest at this time, there is no serious shortage of equipment. One

reason, perhaps, for this is that the lumber business, upon which the Northwest mainly depends, has been in such a distressing condition for so long a time that a large number of empty cars have not been needed. Another reason is that there is no extensive shipment of war munitions from the Pacific coast and comparatively little congestion of traffic at ports on this account.

Some two months or more ago there was an acute shortage of cars in the Northwest, lasting for two or three weeks. This was largely brought about by carelessness, we think, on the part of some of the Western roads in loading and shipping all sorts of commodities to the Atlantic coast ports at a time when they knew there was an embargo on at those ports, and that cars once sent there would not return quickly to the owning road. Greediness for business involving a long haul brought this about, and as soon as the State railroad commissions and the Interstate Commerce Commission, at the request of the lumbermen in the Northwest, took up the situation with the railroads, the practice of letting all their cars leave the country was discontinued and conditions righted themselves almost immediately.

We doubt if the agitation against railroads and corporations is altogether responsible for the condition which you say prevails in some portions of the country. This has no doubt had something to do with it. Some of the trouble, however, can be traced directly to the railroads themselves, some of whom have spent more time in attempting in a quiet way to discredit the Interstate Commerce Commission and free themselves from all sorts of control, so they could do as they pleased, than they have in studying out up-to-date methods of operating their own particular line.

It is our idea that the situation could be very much improved if the Interstate Commerce Commission were given more power and help and were made responsible for the successful operation of all the roads, and we think the commission, if given this power, can readily prevent almost all, if not all, of the serious freight blockades. We have been shipping several thousand cars a year since 1898, and have had several serious experiences with blockades, embargoes and car shortages, have made something of a study of the cause, and have appeared at a number of hearings before the Interstate Commerce Commission in cases involving both car shortages and rates, and it is our opinion that most of the trouble can and should be eliminated, and the way suggested above is the only practical way we can see.

### Lack of Ships and Dockage Principal Cause of Traffic Congestion.

W. L. CLAUSE, President Pittsburgh Plate Glass Co., Pittsburgh, Pa.

Relative to the congestion of traffic on railroads, principally at Philadelphia, New York and Boston, while, in my opinion, there have been a good many contributing causes, by all odds the greatest cause is the sudden and unexpected development of an enormous export business, with the simultaneous decrease in the ocean-carrying tonnage. I think if there had been ships enough to carry the freight and docks enough to provide dockage that the railroad end of the trouble would have been largely, if not totally, eliminated.

### The Remedy, Let the Public and the Railroads Work Together.

CARL F. BOKER, President Cyclops Steel Co., New York, N. Y.

Our works are not seriously suffering from inadequate railroad facilities at present, but the delay in delivery of goods shipped to us, of course, causes inconvenience some times.

Conditions may have existed with some of the railroads which necessitated correction and the attention of the Government. In trying to remedy such existing conditions the Government may possibly have gone a little too far and may have taken too strong a stand against the railroads, and the increasing expenses of the railroads through higher wages and orders issued by the Government to remedy certain conditions have decreased the net earnings of the railroads.

This situation was rendered more acute by the un-

favorable business conditions which have existed up to the year of 1915.

Capitalists became timid in regard to investments in railroad securities, so that it was very difficult for the railroads to raise new capital. The reduced income caused the railroads to delay as much as possible the purchase of new material, including locomotives, cars, etc. When the business of the country increased, the facilities for handling this business were inadequate.

The agitation against the railroads is unquestionably responsible for this to a certain extent. It seems to me the best remedy for existing conditions would be for the railroads to do their duty toward the public by furnishing good service under efficient and strictly honest management, and for the people to take the stand that the railroads are entitled to a fair profit on the invested capital. This would re-establish confidence in railroad investments, enable the railroads to provide adequate facilities and to also raise new capital for extensions and new lines where they are needed.

It seems to me that the remedy for any existing evil would be for the public and the railroads to work together, trying to arrange matters on a fair basis for all concerned, and also for the public to take the stand that prosperity of the railroads contributes to the prosperity of the country, not only by placing them in a position to buy the material they need, but also to secure the necessary capital for extensions and new lines which are necessary for the development of the country.

### Voicing Consensus of Opinion of Business World.

POOLE BROS., Railway Printers, Chicago, Ill.

Anything that we might say we believe would voice what is the consensus of opinion of the business world today in regard to the railroad situation, namely, that, regardless of the past record of the railroads of the country, their efficient and economic operation and plant maintenance at a high standard are essential to the vital interests of the country; that they have been seriously hampered by the conflicting and often restrictive regulations of numerous State and other railway commissions, and that this regulation should be simplified by being concentrated in some national body which would have supervision over and have power to regulate the entire railway system regardless of political or geographical divisions in accordance with the best interests of the country.

We believe that only by some such plan can the railways be successfully operated and administered and the necessary facilities for traffic and transportation provided.

### Agitation Has Injured Railroads' Credit.

W. H. ELLIOT, Secretary Elliot Frog & Switch Co., East St. Louis, Ill.

Our opinion, from a limited knowledge, is that the agitation against the railroads has interfered with their credit, and this has contributed largely to their inability to maintain the standard which most officials would like.

### Expects Car Shortage in Crop Moving Season.

J. W. Wheeler & Co., Lumber, Memphis, Tenn.

We have not been inconvenienced to any great extent on account of car situation, as we handle very little Eastern business. We can only believe that the car shortage will be much more acute when the crops begin moving.

### Too Much Destructive Legislation.

FREDERICK F. SAYRE, President California Sugar & White Pine Co., San Francisco, Cal.

In our experience we do not suffer seriously from the inability of the railroads to handle the freights. Occasionally we get a car shortage on this coast, but that is usually very easily explained. For the past three years we have received especially good service on our shipments eastbound. While there is an embargo on our freight into the Atlantic seaboard for export at the

present time, due to the congestion of traffic in that section, it does not seriously affect our industry, but the fact that we could not get space to ship our commodity and the prohibitive rates on the ocean do affect us.

We are strongly of the opinion that agitation against railroads and corporations is largely responsible for the present condition. There has been too much legislation along destructive lines rather than along constructive lines. What the railroads and corporations need is a long rest, with permission to work out their problems along profitable lines, which will invite capital to invest for the further expansion of the business which must be carried on if we meet the competition, especially so in the world markets. For our own business we would be interested in seeing some relief for the export end of the business, space and reasonable rates, as there is a world market for our production which we are most anxious to serve, and with which we had enjoyed a very satisfactory trade before the war.

### OIL INDUSTRY GREATLY STIMULATES TULSA'S GROWTH.

#### Remarkable Increase in Bank Clearings, Building Operations and Commercial and Industrial Lines.

Tulsa, Okla., June 9—[Special.]—Owing to the phenomenal increase in the production of oil in the Mid-Continent field, and the record price of \$1.55 per barrel, this city, the financial center of the field, is making the most rapid growth in its history. The bank clearings of Tulsa for the first five months in 1916, according to a statement issued by W. A. Brownley, manager of Tulsa clearing-house, was \$65,368,245, against \$27,159,202 for the same period in 1915. The deposits in the Tulsa banks at close of business May 1, 1916, were \$26,110,826, with total resources at that date of \$28,570,857.79.

A recent statement issued by the city administration shows that there are now under construction in Tulsa buildings costing in excess of \$5000 each that aggregate a total of \$1,400,000, this list not including more than 200 homes costing less than \$5000, as shown by the building inspector's records. The Gallias building, a modern 10-story office structure, is nearing completion at a cost of \$200,000. The Federal building is 16 per cent. completed, and will cost \$150,000. The Ketcham building is in course of construction, and will cost \$85,000. The Tulsa Packing Co.'s building will cost \$65,000. The Weldy Bros. business building \$65,000. The local Jewish congregation has begun the erection of a Jewish Temple to cost \$25,000. L. A. Z. Aaronson will build a residence costing \$22,000, and Dan Hunt is building a \$25,000 home.

The current issue of the Oil and Gas Journal of Tulsa gives the daily production of oil in Oklahoma at 349,000 barrels, and there are at this time more wells drilling in proven territory than ever before in the history of the Mid-Continent field. Reliable statistics show that during 1915 the production of oil in Oklahoma was 117,910,444 barrels, and Oklahoma is credited with the development of 1,735,100,000 cubic feet of gas during 1915.

The oil industry and its allied lines are rapidly making of this city not only a great commercial center but a great industrial center, and the attractive price of natural gas for fuel, together with excellent shipping facilities, favorable freight rates and labor conditions, are attracting the attention of manufacturers in lines not especially allied to the oil industry.

CLARENCE B. DOUGLAS,  
General Secretary Tulsa Chamber of Commerce and Federation of Allied Interests.

### Cattlemen's Association to Meet at Shreveport.

The fourth annual meeting of the Southern Cattlemen's Association will be held at Shreveport, La., August 16-18, 1916. Public sales of both beef and dairy cattle will be held during the dates of this convention, and from the splendid program being arranged, an interesting meeting is predicted. Neely Bowen, assistant secretary, Box 935, Memphis, Tenn., reports reduced railroad rates have been secured.



# Cottonseed Crushers' Association

FACTS OF INTEREST BEARING ON THIS INDUSTRY AND ITS RELATION TO  
LIVE STOCK RAISING IN THE SOUTH.

[Special Correspondence Manufacturers Record.]

Memphis, Tenn., June 9.

The twentieth annual convention of the Interstate Cottonseed Crushers' Association was called to order at the Hotel Chisca, Memphis, Tenn., June 6 by F. W. Brode, chairman of the local committee on arrangements. He presented to the meeting T. C. Ashcroft, Mayor of the city; J. B. Edgar, president of the Memphis Merchants' Exchange, and Judge C. N. Burch, representing the Business Men's Club, Chamber of Commerce, each of whom made addresses of welcome, which were responded to by G. W. Covington, vice-president of the association. Colonel Brode then turned the gavel over to J. J. Culbertson, president of the association, and after a few introductory remarks by him the convention proceeded to the business of the meeting.

The first business of the day was the appointment of special committees by the president, that on changes in the constitution and by-laws being E. P. McBurney, E. T. George and R. L. Heflin, that on resolutions being W. A. Reynolds, J. B. Perry and R. E. Montgomery.

The annual address of President Culbertson covered a wide range of topics connected with cottonseed crushing and commented on the high prices which oil, linters and hulls commanded. It discussed the work of the committees of the association during the past year and made mention of Federal Reserve banks and the Federal Trade Commission in their relations to the industry. Mr. Culbertson in his report paid his respects to a decrease of cotton acreage as a means to crop diversification, saying that the cotton farmer could not cultivate new and untried crops easily; that the farmer might raise what he needed for his own use, but that it was unwise to attempt more, and claimed that real diversification followed cotton planting. Then, basing his argument on a careful selection of seed, preparation of the ground, proper planting and cultivation, he proceeded to remind the convention of the quantities of cotton, oil, seed, linters and hulls produced from a crop aggregating 12,000,000 bales, and accompanied these by the figures of selling prices to make his point as to the variety of products from this one crop and the enormous income as a whole to be derived from it, a total of \$180,000,000. The report also suggested the advisability of appointing an assistant to the president, one who could move his residence from place to place so as to work with each successive administration. The question, What is cottonseed meal? was also mentioned.

A committee appointed to consider Mr. Culbertson's report comprised E. M. Durham, M. E. Singleton and C. L. Ives.

The annual report of the secretary-treasurer, Robert Gibson, showed as treasurer the financial condition of the association and gave as secretary its membership: Arkansas, 30; Alabama, 32; Georgia, 58; Louisiana, 53; Mississippi, 44; North Carolina, 27; South Carolina, 28; Tennessee, 41; Texas, 129; Oklahoma, 36; Illinois, 27; Missouri, 8; California, 2; Florida, 1; Indiana, 4; Kentucky, 4; Pennsylvania, 7; New York, 34; Michigan, 2; Minnesota, 1; Arizona, 1; Virginia, 6; Washington, D. C., 17; Maryland, 2; Massachusetts, 2; Wisconsin, 2; Canada, 1; Ireland, 1—a total of 596, an increase of 11 members over the report of the previous year, to which is added 26 new members that joined since May 1 of this year, making a total gain of 37. Major Gibson concluded his report by urging an endeavor to secure further additions. The report was referred to a committee of three—W. B. West, J. B. Hildebrand and F. W. McKee—for consideration.

Prof. Andrew M. Soule, president of the State Agri-

cultural College of Georgia, was presented to the convention by F. W. McKee. His subject was "Cottonseed Meal the Standard Concentrate," and it proved the principal address of the session. Dr. Soule spoke of experiments at Athens with three groups of feed. He tabulated the yield of milk and butter secured under the influence of each feed and carried out the results to the sale of butter and milk, and demonstrated that silage and cottonseed meal produced the greatest money return.

Extracts from Dr. Soule's address follow:

"I have been asked on many occasions whether cottonseed meal at \$30 to \$35 per ton was not too costly to be fed to beef or dairy cattle, and if some combination of foodstuffs could not be suggested which would materially reduce the cost of the daily ration.

"The need of definite information along the line of animal nutrition is very apparent to anyone who has studied the methods of practice followed on the average farm in the South.

"The prices of foodstuffs have gone up more or less permanently, with the likelihood that this condition will be accentuated in the future. It becomes increasingly important that stockmen generally endeavor to inform themselves concerning the merits of different foodstuffs and thereby be in position to buy those rich in the elements in which their home supplies are deficient and to combine various foodstuffs in the most economic and effective manner. If this is done, substantial progress will very shortly be made in the matter of combining and utilizing foodstuffs to better advantage than has ever so far been accomplished. This will certainly not lessen the profit of the stockman, and at the same time will enable him to meet the increased cost of foodstuffs he cannot produce at home with some degree of satisfaction and success.

"To secure some new and more definite data relative to the merits of various rations which could be utilized most profitably by Southern farmers an experiment was inaugurated by the Georgia College of Agriculture last fall to determine in so far as practicable the merits of a ration consisting of cottonseed meal and silage when fed in opposition to silage and hay with minimum and maximum rations of mixed concentrates. Twelve cows were selected for this test. They were equally advanced in their lactation periods. Two Jerseys and two Holsteins were used in each of the three groups into which the cows were divided. Only pure-bred or high-grade animals were selected. They were remarkably uniform as to size, age and general condition. Each of the rations indicated below was fed for 30 days to each group. A transition interval of a week was allowed between the changes in rations to offset the effect of the previous ration fed and allow the animals to become accustomed to the new ration. Each group was thus maintained on each of the three rations for a period of 30 days. The record of each group for the whole period of 90 days, the length of the feeding period, has therefore been summarized and used as the basis of the deductions made.

"The first group received a ration of 36 pounds of silage and 6 pounds of cottonseed meal of the grade known as prime meal or that containing between 33 and 35 per cent. of digestible protein, 6.18 per cent. of nitrogen or 7.5 per cent. ammonia. The second group received the same amount of silage, 7 pounds of hay and 5 pounds of mixed concentrates. The third group received 12 pounds of silage, 10 pounds hay and 10 pounds of mixed concentrates. The concentrates used with groups two and three consisted of a mixture of

cottonseed meal 4 parts, wheat bran 3 parts and corn and cob meal 3 parts.

"The prices allowed for these foodstuffs were as follows: Cottonseed meal \$27.50, wheat bran \$30 and corn and cob meal \$22.85. These would be regarded as average prices for the last few years. In this connection it is proper to state that the results presented were also figured on the basis of cottonseed meal at \$32 per ton, corn and cob meal at \$22.85 and bran at \$25. In spite of the apparent disadvantage at which this placed cottonseed meal, it did not affect in any material sense the profits made from it. In other words, even when a difference of \$7 per ton in favor of wheat bran was made and corn and cob meal was left at the low price of \$22.85 per ton, cottonseed meal at \$32 per ton quite held its own when fed singly and in opposition to combinations of these three concentrates at the prices mentioned. The peavine hay was charged to the cattle at \$14 per ton. It was grown on the college farm. The silage was charged at \$3 per ton, for which we think we can make and preserve it.

"The contention that cottonseed meal will not maintain dairy cows in good condition does not seem to be well substantiated, and this is in accord with our general experience in feeding dairy cows for a period of more than 20 years where silage and cottonseed meal have constituted the chief elements of the winter ration used.

"Silage and cottonseed meal is a home-grown ration, and when used help to provide a profitable market for one of the most important by-products of the average Southern farm.

"The advantage that the use of this ration would effect in the matter of soil improvement is an important consideration. Every ton of cottonseed meal of the grade here used contains 127.4 pounds of nitrogen, 53.2 pounds of phosphoric acid and 36 pounds of potash. At least three-quarters of this should be returned to the soil if the resulting yard manure is carefully handled and properly returned to the soil. Since commercial nitrogen is now worth 20 cents per pound, phosphoric acid 5 to 6 cents and potash unpurchaseable, this phase of the question should be kept closely in mind. In fact, it would be conservative to state that every time a ton of cottonseed meal is fed on a Southern farm from \$20 to \$25 has been added to the fertility of the land if the resulting manure is properly preserved and utilized. Of course, the other concentrates used in this test have a manurial value, but do not compare favorably in this respect with cottonseed meal, as they have a much lower rating as carriers of plant food than cottonseed meal. The building up of Southern soils has now become an essential matter, and I desire to emphasize the great possibilities of increasing the fertility of our land through feeding our cottonseed meal at home.

"Every farmer who has built a silo is loud in its praises and finds that he obtains better results from the use of cottonseed meal than ever before. The cost of a silo, depending on size and the character of the construction followed, will vary from \$75 up to \$500, so that one of these structures is within the reach of every farmer.

"I believe there is no campaign which the Interstate Cottonseed Crushers' Association can afford to promote more vigorously than that of encouraging every stockman in the South to build a silo as soon as possible. Whenever this is done a market for our cottonseed products will be found at home and our livestock industries will receive an impetus that has been lacking up to the present time.

"I believe the facts presented fully demonstrate my contention that through the utilization of cottonseed meal and silage, milk, butter and beef of the finest quality can be produced as economically in the South as in any other section."

The session of the first day closed with an address by J. A. Wade, commissioner of agriculture and industries for Alabama, who spoke of having developed a new cotton which he had christened the Uncle Sam, and who dwelt on his experiences in fighting the shipments into his State of insanitary butter after having discovered that many cases of disease were traceable to that source.

At the second day's session B. P. Bailey of Texas spoke on "Cottonseed Crushers' Liability Underwriters." The committee on the president's annual address recommended appointing a committee, with W. A. Reynolds, chairman, to consider standards in cottonseed meal; also of an assistant to the president.

In the absence of one of the speakers announced by

Condensed Statement of Results.

Group.	Average Weight.		Food Consumed.		Cost of Food.	Yield of		Value of		Profit on		
	Begin- ning.	End.	Concen- trates.	Hay.		Milk.	Butter.	Milk at 30c. Gal.	Butter at 30c. Lb.	Milk.	Butter.	
	Lbs.	Lbs.	Lbs.	Lbs.	\$	Lbs.	Lbs.	\$	\$	\$	\$	
1.....	855	850	2160	....	12856	49.35	6829.9	335.99	238.24	100.79	189.39	51.75
2.....	857	848	1800	2520	12960	61.30	6820.7	327.84	237.92	98.35	176.72	37.15
3.....	851.5	846	3900	3900	4320	79.92	7078.5	341.14	246.56	102.35	168.64	22.43

Rations used basis 1000 pounds.

Group I. Silage, 36 lbs.; cottonseed meal, 6 lbs.

Group II. Silage, 36 lbs.; hay, 7 lbs.; mixed concentrates, 5 lbs.

Group III. Silage, 12 lbs.; hay, 10 lbs.; mixed concentrates, 10 lbs.

Note.—All rations contained equal amount dry matter and digestible nutrients in same relative amount and proportion.

the printed program, President Culbertson called for a family conference and Ernest Lamar spoke briefly on the progress of the association from modest beginnings to this, the twentieth convention, expressing the hope that next year, when the organization shall be 21 years old, a central place be chosen for the meeting and a fitting celebration made.

Fielding Wallace spoke on linters from a supply and demand viewpoint.

E. T. George said that the producer of oil should be very conservative in its sale, especially of early oil, as there would be need for every barrel. He spoke of the present cost of seed and of meal, and said the business in hulls seemed to be uncertain; that the average monthly consumption of linters is between 70,000 and 75,000 bales, and that after the war is over he looked for a very large demand. He advised conservatism in every branch of cottonseed production.

J. S. Le Clerq spoke of the problems of the oil mill men in Texas, quoting the high prices for seed, oil, linters and hulls, and referred to the law in that State defining cottonseed meal.

Lehman Johnson thought cottonseed meal should be known as such, and that it should come into the market as such with a designation of its content.

The report of the publicity committee, read by Chairman J. W. Allison, showed that the bureau of publicity was self-supporting. The bureau prepared and distributed 35,423 booklets in the past year. It spent in newspapers for advertising \$3228.11, this advertising going into farm papers published in the sections where the product is made. There were received 2161 answers from this campaign, which he stated to be almost entirely educational. The report discussed seed selection and tests that would result in a cotton yielding a larger percentage of oil from the seed without detracting from those qualities required by the cotton manufacturer. A colored chart was shown which it was suggested might be distributed in the district schools of the South to show the pupils the value of cottonseed meal as feed.

Colonel Brode introduced K. D. McKellar, member of Congress from this district, who found ready sympathy in his audience as he talked on "Preparedness." He mentioned the work of the present administration in appropriating \$269,000,000, with 20 per cent. premium added for speed, for the immediate enlargement of the United States Navy, covering 5 battle cruisers, 20 scout cruisers, 10 small cruisers, 5 submarines and aviation equipment. This amount, he said, exceeds by \$100,000,000 any appropriation ever made by any country in any one year. He spoke of increased operations at Annapolis and West Point, and said that the bill he referred to contained a provision for military training schools in each State.

Before beginning his remarks on this subject Mr. McKellar went on record as being opposed to the tax of 10 cents on oleomargarine, which he considered as having been laid for the benefit of dairy products at the expense of cottonseed products.

A paper on "Report of Progress on Investigation of Color of Cottonseed Oil" was read by Irwin G. Priest, associate physicist, United States Bureau of Standards. It was illustrated by lantern slides and introduced to the gathering a colorimeter, designed to assist in the study of color.

L. F. Brown, secretary of the American Feed Manufacturers' Association, spoke of weights and guarantees, and hoped for a greater co-operation between the crushers and feed manufacturers' associations.

At the third and last day's session C. W. Ashcraft read the report of the legislative committee, saying he believed it had made progress in remedial legislation. He touched on inequalities in freight rates, saying that imported oils coming to San Francisco were transported to such Eastern points as Chicago and St. Louis at lower rates than similar oils were carried West from those points over the same roads.

Harry Hodgson presented a paper on "Cottonseed Hulls and Meal," in which he spoke of the changes that have recently come into the business of oil milling. He mentioned the increase in price of linters from 2.4 cents per pound to 6.6 cents and the increase in the price of seed of \$6 per ton and the decrease in the quantity of hulls per ton of seed from 624 pounds last year to 538 pounds this year, and said that if the war continued for another year or two the old-style hull would be a thing of the past. He prophesied a wider use for hulls in ready-mixed feed, and looked upon the war as

an agency in establishing cottonseed meal as a human food, which he said, on account of its protein content, was more adapted as a substitute for meat than for bread, as it has usually been considered.

Geo. W. Doonan of the Bureau of Foreign and Domestic Commerce, Washington, read a paper on cottonseed products in foreign trade, in which he spoke of the values of cottonseed oil in 1874 and in 1914 according to reports of the Census Bureau; showed the possibilities of exportation of cottonseed products from this country, and took up in detail cotton acreages in each foreign country where the staple is grown and gave the quantities of cottonseed produced. He pointed out the conditions in cotton growing and oil-making, the chances of business among foreign countries and between them and the United States both as to imports and exports.

Governing committees were elected as follows:

Alabama—Cad Jones, Ozark; Ernest Lamar, Selma. Arkansas—J. B. Hildebrand, Little Rock; W. W. Boyd, Magnolia. Georgia—P. D. McCarley, Atlanta; R. L. McMath, Americus. Illinois—L. W. Zimmerman, Chicago; E. Kissling, Chicago. Kentucky—Frank J. Fulton, Louisville; E. L. Gross, Louisville. Louisiana—W. E. Jervey, New Orleans; M. C. Stockbridge, Ruston. Mississippi—J. H. Petty, Indianola; E. Cahn, Meridian. Missouri—H. Highfill, Caruthersville; J. A. Schwartz, Kansas City. New York—John Aspegren, New York; August Elbert, New York. North Carolina—C. A. Johnson, Tarboro; W. H. Jasspen, Charlotte. Ohio—Franklin Ives, Cincinnati; J. N. Macdonald, Cincinnati. Oklahoma—R. K. Wooten, Chickasha; M. O. Crumpler, Ada. South Carolina—W. B. West, Columbia; John Stevens, Kershaw. Tennessee—J. H. Du Bose, Memphis; J. H. McNeil, Memphis. Texas—R. F. Crow, Houston; J. W. Simmons, Quanah; J. Webb Howell, Bryan, and H. E. Rathbone, Victoria.

Officers for the ensuing year were elected as follows: President, G. W. Covington, Hazlehurst, Miss.; vice-president, Fielding Wallace, Augusta, Ga.; chairman of publicity bureau, Jo W. Allison, Dallas, Tex., present incumbent. Robert Gibson, secretary-treasurer, was elected for life.

Invitations were received from a number of cities as next meeting place, all of which were referred to the executive committee.

The retiring president was the recipient of a very handsome silver service. He assured the members of the association that the gift was particularly appreciated at this time, as the fire in Paris, his home city, had wiped out the family heirlooms.

Resolutions were adopted heartily commending the people of Memphis for the very hospitable entertainment which was given to the members of the association and the ladies who accompanied them. The various trips provided for the visitors included an inspection of the Memphis Terminal Corporation warehouse, credited with being the largest cotton warehouse in the world. Delegates to the number of 650 were registered, and the total attendance is estimated at about 1000.

Exhibits were confined to local houses. The Richardson Scale Co., Passaic, N. J., was represented by its local sales manager, Mr. J. Instone. The Lehman Johnson Laboratory and School showed one of its machines, as did the Brust Manufacturing Co. The Southern Cotton Picker Co. had one of its "Pickaninny" pickers at work just outside the hotel, and M. B. Green was showing his patented press box. Its claims are a largely increased oil drainage, giving greater yield of oil per ton of seed and increased length of life of press cloth.

### Foods and Manufactures Wanted.

Antolin Perez Alvarez, P. O. Box 509, San Juan, P. R.:

"Would be pleased to get in touch with flour and rice mills, also lard, hams, salted fish, grains, sugar refiners and all that pertains to produce; also manufacturers of chinaware, furniture, iron beds, glassware, rope, enamel ware, paper of all kinds, cheese, butter and all sorts of novelties. At present there are good opportunities to do business here. This island is agricultural; 75 per cent. of its production is sugar, and as there exists with the United States coastwise trade, a great deal of money is made. The other products that follow are tobacco, citrus fruits, pineapple. Nearly all these products are shipped to the United States."

## IRON AND STEEL CONDITIONS IN BIRMINGHAM.

### Projected Improvements Delayed by High Cost.

Birmingham, Ala., June 10.—[Special.]—Birmingham furnace operators are unable to figure out the future. For the present they are bent on maintaining a level of \$15. So far as the makers are concerned, this price does not appear to have been shaded. However, some warrant metal has been offered at as low as \$14, and this has had the effect of softening the tone generally.

More noted is the disposition to quote on forward metal at the same figure as spot. Sales of carload lots and up to 500 tons were made for the East and into the Middle West, as well as in the South, during the week for spot and July and August delivery on the uniform basis of \$15. Very little effort is being made to secure \$15.50 for any forward iron this year. The leading interest is among those who name that level for 1917 delivery, but the consumers have well-nigh quit inquiring that far ahead. Hence there is only one price now maintaining, namely, \$15. That could doubtless be shaded for large quantities.

The monotony was broken during the week by inquiries for 10,000 tons and one for 5000, one coming from the West. Prices were quoted, but sales were not consummated. Evidently consumers are sounding a variety of makers and markets before making purchases. Transactions of the past few days have not amounted to a great deal. One company booked 700 tons in a week and another sold a carload or so.

Whether the wiggling state of the market will have effect on production remains to be seen. The Woodwards have blown out a 400-ton stack for relining, and will place a 400-ton stack on basic July 1 for rest of the year run. Their Vanderbilt stack and a Sloss-Sheffield city stack are ready for the torch. The new Sloss-Sheffield and the Alabama company's Gadsden stack, as well as that of the Woodstock company at Anniston, are also among those in preparation for firing up. On a strong market they will all come in and share in the present high mark of prosperity. A weakening of the market may alter the situation.

Alabama's May iron production was 223,000 tons, as compared with 147,000 tons in May of 1915. There were 27 active stacks. The product was divided into 150,000 tons of foundry iron and 74,000 of basic metal, the latter consumed at home in the steel mills.

The water and gaspipe concerns have not received orders for large tonnages, but the Middle West and Southwest continue to furnish them with a fair volume of new business. The sanitary pipe shops are also doing fairly well. Quotations remain around \$28 for four inches and \$25 for six inches and larger, with \$1 added for gaspipe and 10-foot lengths.

Coke has not varied in price or strength in six weeks. There is not enough standard foundry to go around. Makers are turning over orders to one another on account of pressure. For large quantities the price is from \$4 to \$4.25 f. o. b. ovens, with 25 cents additional for small and rush orders.

Coal operators, reviewing the past two weeks, see where contract renewals include a larger tonnage than that of last year, and in several instances higher prices were obtained. Slices of lost territory were retaken, with prospect of additional recoupment in the Lower Mississippi Valley incident to the recent leveling of rates per distance, as between Kentucky, Illinois and Alabama collieries.

Steel mills are in full operation, the maximum of the past few months appearing not to have abated. The Tennessee company is rolling a large quantity of steel rails.

A large proportion of the mills, mines and factories of Northern and Central Alabama bid fair to be driven by electricity instead of steam. In a measure this conversion has already taken place with cotton mills, cement plants, coal mines, two steel mills and other industries. The Hicks Hosiery Mills, the Highland City and the Chinnabee Cotton Mills, all of Talladega, have just contracted with the Alabama Power Co. for hydro-electricity instead of steam. It is estimated by Alabama coal operators that hydro-electricity has already cut into them by about 1,500,000 tons per annum.

High prices of steel products, machinery, etc., have had the tendency to halt inception of some structural and industrial enterprises in Alabama. Among these



IN BIR-

y High

irmingham  
the future.  
a level of  
this price  
ver, some  
\$14, and  
generally,  
forward  
road lots  
and into  
uring the  
y on the  
g made to  
The lead-  
level for  
high quit  
one price  
doubtless

k by in-  
es coming  
les were  
ounding  
ing pur-  
have not  
oked 700  
so.

will have  
e Wood-  
ing, and  
st of the  
Shelfield  
w Sloss-  
n stack,  
nniston,  
up. On  
e in the  
g of the

00 tons,  
There  
led into  
e metal.

received  
est and  
volume  
so doing  
or four  
1 added

eks, see  
ge than  
r prices  
retaken,  
Lower  
ding of  
ois and

of the  
l. The  
of steel

actories  
driven  
is con-  
lls, ce-  
indus-  
ity and  
are just  
co-elec-  
abama  
ly cut

, have  
atural  
these

is the projected \$2,000,000 by-product and benzol works of the Sloss-Sheffield company at North Birmingham. It is reliably reported that estimates show that the construction of such plants at this time would be 50 per cent. and more above the cost at this time last year. The rehabilitation of an idle blast furnace with a view to the manufacture of basic metal out of specially-prepared ores is also halted for the same reason. Structural operations in the Birmingham district are at a low ebb, especially where such operations entail the use of large quantities of structural steel. The most active material in present building operations is reinforced concrete. There are indications that there is going to be a lot of waiting on lower schedules for steel shapes and other finished material and appliances.

Legal action has been taken at Birmingham to prevent the issuance of the \$2,000,000 of school bonds, the \$500,000 of municipal lighting plant bonds and the \$500,000 of auditorium, city hall and library bonds authorized by the citizens of Birmingham on June 5 by substantial majorities cast in favor of all the issues at a special election held for that purpose. The city authorities claim that the contestants will lose. In 1898 the city of Birmingham by a special constitutional amendment was authorized to levy an additional five mills tax to pay interest on its bonded debt and to create a sinking fund to retire said bonds at maturity. In a special charter amendment of 1899 the city was allowed to apply this extra tax to bonds to be "hereafter" issued as well as to those already existing. The State Constitution of 1901 readopted the constitutional amendment of 1898. The city has issued over \$4,000,000 of bonds since 1898 and applied this tax to them, and relies upon the enactments mentioned. The contestants attack this attitude. Those favoring the bond issues do not object to the legal action, because a friendly suit to fix their legality would have been necessary in order to sell them.

Following are comparative monthly productions of pig-iron in Alabama during the past eight months and the eight months of a year preceding:

Month.	1915. Tons.	1914. Tons.
October .....	212,805	355,480
November .....	211,127	146,990
December .....	228,697	145,673
1916.		
January .....	229,584	144,985
February .....	226,688	126,277
March .....	235,485	136,963
April .....	227,378	139,936
May .....	223,547	147,406
Total .....	1,795,396	1,140,846

#### PIG-IRON.

No. 1 foundry.....	\$15 50 to \$15 75
No. 2 foundry.....	15 00 to 15 25
No. 3 foundry.....	14 50 to 14 75
No. 4 foundry.....	14 25 to 14 50
Gray forge.....	14 00 to 14 25
Basic.....	15 00 to 15 25
Charcoal.....	22 00 to 22 50

#### OLD MATERIALS.

Old steel axles.....	\$22 00 to \$23 00
Old steel rails.....	11 00 to 11 25
No. 1 steel scrap.....	9 50 to 10 00
No. 1 wrought scrap.....	13 00 to 13 50
No. 1 cast scrap.....	11 00 to 11 50
Extra heavy cast scrap.....	10 00 to 10 50
Store plate and light cast.....	10 00 to 10 50
Old car wheels.....	10 50 to 11 00
Tram car wheels.....	9 50 to 10 00

### The Output of Abrasives.

The output of natural abrasive materials in 1915 was valued at \$1,662,055, according to figures given out by the United States Geological Survey. Millstones and related products valued at \$53,480 were produced in New York, Virginia, Pennsylvania and North Carolina. Grindstones and like products valued at \$648,479 were produced in Ohio, Michigan and West Virginia. Oilstones, hones, whetstones, scythestone and rubbing stones valued at \$115,175 were produced in Arkansas, Indiana, Ohio, Kentucky and Pennsylvania. Emery to the value of \$31,131 was produced in New York. Garnet amounting to 4301 short tons and valued at \$139,384 was produced in New York and New Hampshire. The diatomaceous earth and tripoli produced amounted to 35,304 short tons and were valued at \$611,021. Tripoli and rottenstone were produced in Illinois, Missouri, Georgia and Pennsylvania, and diatomaceous earth was produced in California, Connecticut, Maryland, Massachusetts, Nevada, New Hampshire, New York, Oregon, Virginia and Washington. Pumice to the amount of 27,708 short tons, valued at \$63,185, was produced in California, Kansas and Nebraska.

### Big Developments in East Tennessee in Water-Power, Aluminum and Lumber.

Knoxville, Tenn., June 10.—[Special.]—Somewhat as a by-product of the \$10,000,000 expenditure of the Aluminum Company of America in the extension of its smelting plant at Maryville and the building of dams with a potential capacity of 200,000 to 300,000 horsepower on the Little Tennessee River in Blount county, Tennessee, the Babcock Land & Lumber Co. of Pittsburgh, Pa., will work the northern end of the 50,000-acre Monroe county timber tract and build a mill at Maryville on a 330-acre tract adjoining the 700-acre tract on which are located the Aluminum Company smelters.

The Babcock interests are said to own 100,000 acres in Monroe county, where they have a mill at Tellico Plains, with a 25-mile standard-gauge road running up the Tellico River through their property, which has been worked for years.

In order to build the Aluminum Company dams it was necessary for the Southern Railway to build a 15-mile extension of its Knoxville & Augusta line from Chilhowee to Alcon, which is now completed and work beginning on the middle dam. This brought the railroad near enough to the Babcock property to enable the Babcock company to cut timber on its Monroe county tract and bring it out through Blount county.

From the first unit of their Maryville plant, built within the last two years, the Aluminum Company has completed four units and checked out 2100 men on their payroll last Saturday. Maryville, from a quiet little town, is now blooming out into a rapidly-growing little city, with every house filled, houses going up by the dozens, and the announcement that the Aluminum Company will build several houses at once for its employees, although the original policy was to urge the citizens of Knoxville to build these houses.

A \$20,000 real estate transfer of acreage for subdivision purposes near the Aluminum Company and the proposed Babcock plant has just been recorded.

In connection with the Babcock mill, it is intended a little later to build associated plants for making boxes, laths, furniture and other wood specialties.

The extension of the Knoxville & Augusta may also hasten the development of a tract of timber bought for \$200,000 by the Morton Butler Company of Chicago, this tract lying on Abrams Creek.

### Pascagoula's Public Dock Site Approved.

Official notice was received in Pascagoula, Miss., last week from Washington to the effect that the proposed public dock site, with a frontage of 800 feet and 200 feet wide, on the Pascagoula River, had been accepted by the United States Department of Engineers. Several years ago the Rivers and Harbors bill provided for a 22-foot channel from Horn Island Pass to a point just above the Alabama & Mississippi Railroad bridge, a distance of 21 miles, on condition that the cities of Moss Point and Pascagoula each would give and reserve a strip of land for public docks. The land provided by Moss Point was accepted at once, but the land in Pascagoula was held up, owing to technical difficulties which have been removed, and it is thought the appropriation should now be made available.

### Completes Munition Machinery Contract Ahead of Schedule.

About a year ago Riddell Bros., machinists, 16 E. Mitchell street, Atlanta, received an order for 30 cartridge trimming machines from the United States Cartridge Co., Lowell, Mass., consignments to be made every 90 days. Riddell Bros. now report that the final shipment has been made and that each consignment was practically 30 days ahead of the specified time.

The machines were manufactured from blueprints supplied by the cartridge company. Extreme accuracy was required in their construction, the parts being scaled to one-thousandth of an inch.

The successful execution of this contract, which called for such delicate machine work, is another illustration that Southern machine shops are capable of competing with other sections of the country in manufacturing machinery of exacting and minute standards of measurement.

### PROJECTED MISSISSIPPI RIVER BRIDGES AT NEW ORLEANS AND BATON ROUGE.

#### Standard Oil to Enlarge Its Baton Rouge Operations.

New Orleans, La., June 12.—[Special.]—Louisiana's Legislature rejected the plea of a group of private promoters, headed by State Senator E. M. Stafford, Col. R. L. Stevens and Arthur McGuirk, asking a franchise and exclusive privilege for a railroad and traffic bridge across the Mississippi River, and in lieu thereof the House and Senate committees have recommended favorably to the Legislature a measure granting the Public Belt Commission of New Orleans the exclusive right to bridge or tunnel the Mississippi "in or near New Orleans."

The measure also gives the belt commission the right to compel all railroads moving traffic across the Mississippi "at or near New Orleans" to use the bridge or the tunnel to the exclusion of ferries or bridges of their own.

Meantime, the New Orleans city authorities plan to ask Congress for the Federal legislation necessary before any bridge can be cast across the Mississippi River.

Furthermore, the Baton Rouge city authorities and commercial bodies are asking Congress for speedy passage of an act extending the time within which a private corporation already organized there may construct a bridge across the Mississippi at the highlands just above the State capital.

The parties concerned in the Baton Rouge project express themselves as confident that the arrangements are now nearly complete for their bridge plan. They depend upon the New Orleans, Mexico & Texas, the Louisiana Railway & Navigation Co., the Texas & Pacific and the Southern Pacific for the traffic for this bridge.

Engineers say that the bridge at Baton Rouge will cost about 60 per cent. of a bridge at New Orleans.

A new purchase of 82 acres of land north of the present plant has just been announced by the Standard Oil Co. of Louisiana. This purchase includes some hundreds of yards of additional river frontage and room for more tanks.

Immediate construction will begin upon additional batteries of latest designed stills, intended to increase the production of gasoline from the crude petroleum piped down from the Caddo and other Northwestern Louisiana fields. These stills will be erected upon the older reservation of the refinery, the tanks from that district being floated in leveed-in channels from their present sites to new sites on the newly-purchased ground.

### Increasing Use of Round Bale Cotton.

The Southern Round Bale Press Co., of 2 Rector street, New York, recently purchased the round bale properties of the American Round Bale Press Co., and in a letter to the MANUFACTURERS RECORD Mr. Paul Jones, the general manager, writes:

The Southern Round Bale Press Co. has sold a number of the gin plants and round-bale presses which it acquired, and is offering others for sale. The new company believes that this is the best way to popularize the round bale and interest the Southern ginners and cotton handlers in a better and more economical way of baling cotton. These results were shown by last season's business, as the number of round bales put up last season was considerably in excess of the number of bales put up the season before, and the prospects now are that there will be a very considerable increase in round bales next season. The high cost of delivering the old square bale to the European spinner under conditions brought about by the European war and the high price of cotton in the European markets as compared with American markets have very greatly increased the savings to the exporter in delivering round-bale cotton as against square bales, especially in the items of freight, insurance and tare.

### Surry County Progress Edition.

The Mt. Airy (N. C.) News with its June 1 issue published a special Surry county progress edition.

In this number the resources and opportunities in Surry county and Mt. Airy were comprehensively covered by extensive articles and many interesting illustrations. This number was published with the co-operation of progressive business men of Mt. Airy and Surry county.

## LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

### LUMBER OPERATIONS HALTING.

#### Some Heavy Orders in Prospect, But Building Work Slow.

New Orleans, La., June 12.—[Special.]—A dwindling export movement to Europe through New Orleans, a steadily continuing movement to Latin America and a hardly understood failure on the part of the domestic pine market to pick up as has been anticipated mark the lumber situation in the New Orleans district during the past week.

All personal interest has centered about the big gatherings in Chicago, and comment and discussion among returning delegates has all turned upon the incidents there.

President Robert H. Downman of the National Lumber Manufacturers' Association remained over in Chicago to look on at the Progressive and Republican national conventions.

In Southern Pine Association offices the entire working force is now engaged in compiling additional statistics to be submitted to the Interstate Commerce Commission in Docket No. 8131, in the "matter of rates on and classification of lumber and lumber products" for the hearings to be held later in the year.

These statistics are to be supplementary to those contained in the voluminous "digest of answers to interrogatories propounded by the Interstate Commerce Commission," issued by the Interstate Commission to shippers and carriers under date of May 11.

They will be used in the presentation of the case of the lumbermen, as outlined to them by the counsel in Chicago.

The reports from associated pine mills in this district during the latter part of May and early June have strained the optimists' ability to conjure good indices to the immediate future.

Here are the comparative figures:

Week ending May 26, orders, 4223 cars; shipments, 4487 cars; on hand, 20,714.

Week ending June 2, orders, 3272 cars; shipments, 4426 cars; on hand, 18,294.

While unfilled orders ahead are now at the lowest point they have reached in many months, it is also true that the production is now running unhealthily ahead of orders, even if a little behind shipments. Stocks on hand are now being kept about at a standstill, but the "quick assets" of orders awaiting cars are being reduced.

Orders were below production a full 24.01 during the week that opened June.

Prices, however, while still below the level of some months ago, continue firm, and manufacturers have resisted the temptation to make concessions, and instead have rather turned to the alternative of taking every occasion to reduce output.

Average production for the 147 reporting mills for the last full week upon which there are statistics show 587,103 feet, as against 663,889 feet average production in the last week in March.

Supplies of cars have been uncertain, although there is a total available quantity of rolling stock that is slowly eating down the reserve of unfilled orders. Persistent embargoes in some districts, however, have held back orders.

There has not been, and is not yet, the quickening of demand for building material which was expected to develop in the early summer. The trade seems rather at a loss to explain this factor in the trade. Probably this is because the trade expected too much, however, for the total is a volume which would have been accepted as normal in other years.

Railroads in the last 10 days have announced orders for wooden box cars aggregating nearly 10,000 in number. An order of 14,000,000 feet of pine for the Canal Zone is announced to be in preparation and in the market within the next week.

There are rumors of large European governmental orders in the near future, and the recurrent whispers of peace couple themselves with vague inquiries for great quantities of rebuilding materials.

The British Government is said to be in the market for 1,000,000 or more sleepers.

The actual movement through New Orleans to Latin America last week was of encouraging proportions. Cristobal Colon took one of the big Panama Canal Zone shipments of 787,045 feet of pine. Kingston, Jamaica, took 326,000 feet; Bocas del Toro, 168,000, and Puerto Cortez, 76,000. Havana and Bocas divided a cargo of 205,000 feet.

New York got two shipments of considerable size, one of 199,992 feet and another of 166,680 feet.

Spain took 281,000 staves; Rotterdam, 21,000 bundles of staves; Christiana, 524 pieces of mahogany; Liverpool, 402 bundles of hardwood, and Havre, 3745 pieces of spruce timber that drifted this way to the sea.

Lumbermen generally are interested in the revival of plans for the industrial canal, linking the Mississippi with Lake Pontchartrain.

The legislation which empowered the Board of Commissioners of the Port of New Orleans to construct this facility, with its planned great lumber basin and timber dock, was found at the last to be of doubtful sufficiency, according to some lawyers.

Consequently, the municipality of New Orleans is now drafting a new measure, in supplement to the previous measure, curing the indicated defects and establishing the "right of excess condemnation" upon which the financing scheme for the canal was to be based beyond all doubt.

The city government and the State administration are sympathetic, and it is not doubted that the measure will pass and steps for the construction of the canal be taken immediately thereafter.

### Gum Lumber Advertising Brings Results.

It is reported from Memphis, Tenn., that the directors of the Gum Lumber Manufacturers' Association have received such reports from the advertising campaign inaugurated a few months ago that it was decided to call the semi-annual meeting of the association June 24 and to urge the extension of the campaign. The campaign has already brought such excellent returns, it was stated, that the directors are convinced of the value of printer's ink as expended in newspaper and magazine advertising.

### Government Buys Lumber for Use in Mexico.

A contract for 1,250,000 feet of yellow pine lumber to be used by the United States forces in building temporary roads in Mexico for the movement of the army supply trains has been secured by the Beaumont Lumber Co. The timber, which consists of three-inch planks, has been going forward at the rate of 150,000 feet a day.

The Beaumont Lumber Co. wires that the lumber business is good and all of the mills are well supplied with orders and the outlook is very encouraging.

### Purchase 6,000,000 feet of Lumber.

The Carpenter & O'Brien Lumber Co., New York, wires the MANUFACTURERS RECORD that they have placed an order for 6,000,000 feet of yard stock with the Dowling-Shands Lumber Co., Green Cove Springs, Florida.

### \$2,000,000 Louisiana Land Development Co.

The Land Trust Co. has been organized by Wm. J. Castell of New Orleans, its purpose being to develop 136,000 acres of Terrebonne parish land lying eight miles from Morgan City. It is proposed to redeem the land in units of 5000 acres, surrounding this property by levees and lateral canals. Eighty-acre farms will be offered, with orange and grapefruit trees planted. The engineering features are being considered, and will probably be determined within the next several months, the entire development to cover 10 years. The property is completely landlocked and surrounded by fresh-water arteries of sufficient depth to float large vessels. The soil is alluvial silt washed from the higher sections of the Mississippi Valley by the waters of the Mississippi River.

## FOREIGN NEEDS

### Thinks American Manufacturers Are Failing to Utilize Their Opportunities.

G. J. Tsatsos, 37 Rue d' Hermes, Greece:

"I am obliged to you for your kind assistance, which I have already on several occasions had the advantage of appreciating, recognizing the importance of the MANUFACTURERS RECORD. Your method of thus putting into touch, free of charge, members of your industrial bodies in the U. S. A. with the whole world is a precious institution, and one of considerable use to the public at large.

"My impression, however, of the American firms themselves is a striking contrast to this fine spirit. They all seem eager to use every effort to realize at the minute the largest profits obtainable by important contracts, and give no heed to connections that would ensure good business when normal conditions are resumed after this war. They do not appear to enjoy any very perfected organization as regards their exports, and take no trouble to supplant on this market the European supplies which at the moment are at entire disadvantage. If they desired to advance on this line, they would no doubt have had success ensured them by following German methods. Although the Germans are not much favored by my sympathies, I think that their methods of taking every possible means of entering a market and getting hold of same are certainly more recommendable than those of the French and English, who have for long years been very conservative in their ways.

"Your consul is in a position to give every information as to the trade of this market, and as to the ways best suited to enter same, and he will doubtless tell you that trusting their interests to a first-rate representative is the only way by which American firms can go ahead in this country. Such a representative must naturally be given every assistance, and his instructions must be well defined, supplemented by all available information for his guidance. Samples for most goods are absolutely indispensable, as customers are by nature wary.

"In conclusion, I would say that American firms should take into consideration that America for Greece is really a practically unknown land, and the trade that has of late gone their way is merely due to the stupendous war that has closed most European doors. If, however, they do not take advantage of the conditions created by this war, they will, when the normal is resumed, not be farther ahead as regards their business connections with this country than they were before.

"I am willing to take charge of agencies of U. S. A. firms of good standing who would understand and adopt the views stated above, and would, in turn, be willing to grant me their agency exclusively. On my side, I should work for them exclusively, only undertaking one agency for one class of goods, e. g., I represent the American Steel Export Co. of Philadelphia for iron and steel products, and would, therefore, not undertake these products for account of any other firm. I would naturally be glad to supply any firm that is willing to enter into business in this region with every reference required, and that mainly from the firms I already represent, and whose agencies I have held for a number of years.

"I trust you will not deem I am abusing the proffered kindness of your publications by giving you the above somewhat in detail, and feel sure that if opportunity arises you will tender any assistance in your power to this market through my channel."

### Want Machinery for Cocoanut Plantation.

Gontard Co., 82-92 Beaver street, New York:

"Put us in touch with manufacturer who can supply complete outfit of machinery to cultivate cocoanuts for oil, with special machine to mill the seed or rattan, that is especially hard. Furthermore, our client in Nicaragua wants a machine to remove the fiber and clean the cocoanut shells, also sawing machine; that is, base and car without boiler, saw measuring 24 inches. In addition to this, freight automobile of three or four tons to carry the cocoanuts is required."



## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### HANDLED 12,500,000 BUSHELS OF GRAIN.

Besides Doubling Elevator Capacity, Western Maryland Railway Is Adding Other Buildings.

The erection of the large addition to the Western Maryland Railroad Co.'s grain elevator at Port Covington, Baltimore, will necessitate many changes, probably the most important of which will be enlarging the channel approach. The channel is now 175 feet wide, and will be made 100 feet wider for a length of 2000 feet. The contract for this work will shortly be let, the channel to be 35 feet deep. Within six months tracks for the storage of 600 more cars will have been laid, making place for over 1500 cars. Grading and filling preparatory to laying the tracks is now being rushed.

A steel building erected by the C. D. Pruden Company of Baltimore has just been completed. This is 20 feet wide and 70 feet long, and one story high. It is divided into four parts, for a machine shop, oilroom, storeroom and employes-room. The employes-room has electric lights, fans, shower baths and individual lockers.

Work will shortly begin on a concrete office over the present train shed. It will be so built that the elevator superintendent or foreman will be able to observe the movement of all engines and cars in the yards and also the movements of boats coming to and from the dock. It will be connected with all parts of the elevator by an elaborate system of speaking tubes and telephones. This addition will be of one story, 30x30 feet, and will be erected by the James Stewart Construction Co. of Chicago, which is building the new addition to the elevator.

The loading spouts were recently equipped with lights, so that loading vessels at night is no harder than in day. Lights are fixed on the booms, so that they show directly into the hatches, giving fine illumination. Along the dock twenty-eight 250-candle-power lights have been placed.

In order to insure that loading will not be delayed because of rain, a number of tents have been obtained and are of such size as to completely cover the entire hatch of vessels. This feature sometimes saves thousands of dollars demurrage charges to people handling grain through the elevator. Another feature is that a large supply of stevedores' bags are always kept on hand, so that whenever a boat runs short the bags from the elevator are put in use until the stevedores are supplied with new bags. Delays of from four to five hours are saved through this scheme. In order to supply all vessels tied up at the dock with a supply of fresh water it has been so arranged that no matter at what berth they may be, they will be able to obtain it with ease.

Work on the new addition is progressing rapidly, and is now about two weeks ahead of time. All indications are that it will be ready to receive grain between July 25 and August 1. Work is proceeding day and night.

During May 40 ocean vessels received part or full cargoes at the elevator, approximating a total of 4,800,000 bushels. There were 3500 cars unloaded into elevator containing about 4,500,000 bushels, and if the addition was completed within the next 30 days practically the same amount of grain could also be handled in it with the present number of employes. Since it was opened December 15 last the elevator has loaded into steamers over 12,000,000 bushels and unloaded from cars over 12,500,000 bushels of grain.

A. A. Keller was recently appointed assistant foreman of the elevator. He is considered one of the best elevator foremen in the Southwest, and was connected during the past 12 years with the Rosenbaum Grain Co. and the Simonds-Shields Grain Co., both of Kansas City and Chicago.

J. A. Peterson, superintendent of elevators for the railroad, speaks highly of the service furnished by the Gas & Electric Company of Baltimore, stating that since the elevator started it has not been stopped once because of power trouble. Three-phase 25-cycle alter-

nating current is supplied. A total of 40 motors is operated, totaling about 1600 horse-power, varying in size from 10 to 100 horse-power.

### ATLANTA-SAVANNAH NEW ROUTE.

Extension from St. Clair to Camak, Ga., to Be Operated in a Month.

The Savannah & Northwestern Railway, according to a report from Savannah, Ga., has completed track-laying on its extension from St. Clair to Camak, Ga., 35 miles, connecting there with the Georgia Railroad, and will be ready to establish regular freight service in 30 days between Savannah and Atlanta. A charter was obtained last fall for this extension under the name of the Savannah & Atlanta Railway, and contract for its construction was let in December. The new line also connects with the Augusta Southern Railroad at Wrens, which will afford it an additional route to Augusta, as it already connects with the Georgia & Florida Railway at St. Clair. Announcement of the proposed opening of the extension was made by C. E. Gay, vice-president and general manager of the Savannah & Northwestern.

It is reported that this connection with the Atlantic Coast Line and the Louisville & Nashville Railroad through the Georgia Railroad, of which they are joint lessees, will result in the development of very heavy freight traffic from points on those systems east and west, especially in the latter section, to Savannah, and that this will be followed by the building by the Savannah & Northwestern Railway of waterfront terminals of great size in that city to handle the large volume of business that will consequently come there. The western terminals of the Louisville & Nashville are at Cincinnati, Louisville, St. Louis and Memphis, where it has traffic connections with other roads to distant points in the West. It also extends south to Atlanta, Birmingham, Montgomery, New Orleans, Mobile and Pensacola, while the Coast Line reaches from Richmond as far south as Fort Myers, Fla., touching all important cities on the way and connecting with its controlled line, the Louisville & Nashville, at Atlanta and Montgomery.

The line from Savannah to Camak, 131 miles, traverses one of the best farming regions in Georgia, and it furthermore affords a very short route between Atlanta and Savannah. Among the important points connected by the road are Springfield, Sylvania, Waynesboro and St. Clair. John H. Hunter of Savannah is president, and James Imbrie, 61 Broadway, New York, is chairman of the board.

### Baltimore & Ohio Elects a New Treasurer.

F. M. Devereux has been elected treasurer of the Baltimore & Ohio Railroad Co. to succeed J. V. McNeal, fourth vice-president and treasurer, who will retire from the service of the company June 30, having passed the age limit of 70 years on June 11. Mr. Devereux, now the assistant treasurer of the road, with headquarters in New York, will remove to Baltimore and be succeeded by R. B. Luckey. Mr. McNeal has been engaged in railroad work for 42 years, 32 of which were spent with the Baltimore & Ohio. The position of vice-president, which Mr. McNeal will also relinquish, has not been filled.

### Extension to Guthrie, Okla.

The Oklahoma Railway Co. expects to have its extension from Edmond to Guthrie, Okla., 16 miles, completed by July 1. The grade is finished to a point within three miles of Guthrie, and track is laid on nine miles of the extension. Construction, which started in February, was delayed a month and a half by bad weather, and following this came delays in obtaining materials. The building of this electric railway from Oklahoma City to Guthrie, about 27 miles, has been contemplated for a number of years, and its completion is now about to be realized. The grade is easy, and the grade crossings on the line have been reduced one-third. There are 10 trestle bridges. An hourly service is to be established. Guy B. Treat is chief engineer, under whose direction the work is being done.

### New Equipment, Etc.

Baltimore & Ohio Railroad has ordered 1000 box cars from the Haskell & Barker Car Co., Michigan City, Ind., and it is also in the market for 1000 underframes for box and refrigerator cars.

Southern Railway has ordered 10,000 tons of rails from the Maryland Steel Co. for delivery next year.

Chesapeake & Ohio Railway is reported getting prices preliminary to placing contract for 1000 box cars.

Texas & Pacific Railway is reported to have ordered for 8 switching engines, and it also contemplates purchasing 100 ballast cars, 6 mail and 2 baggage and mail cars.

Virginian Railway may place order for 1500 all-steel heavy gondola cars.

Pennsylvania Railroad has ordered 1200 more tons of bridge steel from the Pennsylvania Steel Co.

Illinois Central Railroad is reported to have ordered 300 stock cars from the American Car & Foundry Co., St. Louis.

Pennsylvania Railroad is expected to order construction of 5000 gondola cars of 70 tons capacity.

Louisville, Henderson & St. Louis Railroad has ordered a parlor car from the American Car & Foundry Co.

Southern Railway is building 1000 box cars at the Lenoir City Car Works, Lenoir City, Tenn.

Cumberland & Manchester Railroad, Barbourville, Ky., is reported to have bought and received some rolling stock.

Mobile & Ohio Railroad has filed an equipment contract covering the purchase of 1000 30-ton steel center sill ventilated cars from the American Car & Foundry Co., the securities issued under the contract amounting to \$950,000.

Cincinnati, New Orleans & Texas Pacific Railway and the Alabama Great Southern Railroad (Queen & Crescent Route) have filed mortgages amounting to \$3,398,608 to cover the purchase of equipment described last week, of which \$2,054,627 is assigned to the former and \$1,313,970 to the latter.

### Nashville, Chattanooga & St. Louis Railway Earnings.

The Nashville, Chattanooga & St. Louis Railway Co.'s statement for April shows operating revenues, \$1,079,953.78; increase as compared with April of last year, \$151,022.75; operating expenses, \$833,537.65; increase, \$43,596.53; net operating revenues, \$246,416.13; increase, \$107,426.22; operating income after deducting taxes and uncollected railway revenues, \$219,210.04; increase, \$106,494.84.

For the 10 months of the company's year which began July 1 last, the operating revenues were \$10,500,236.60; increase as compared with the same period of last year, \$1,346,652.96; operating expenses, \$7,878,823.06; increase, \$158,690.80; net operating revenues, \$2,681,413; increase, \$1,187,962.16; operating income after taxes and uncollectible railway revenue, \$2,415,767.41; increase, \$1,192,204.84.

### Western Maryland Earnings Grow.

The Western Maryland Railway Co.'s statement for April shows revenues, \$931,834; increase as compared with the same month of last year, \$138,575; expenses, \$585,372; increase, \$51,026; net revenues, \$346,461; increase, \$87,549; operating income after taxes, \$315,461; increase, \$83,049.

For the 10 months of the company's year up to April 30 the revenues were \$8,936,286; increase as compared with the same period of last year, \$1,935,560; expenses, \$5,842,361; increase, \$683,317; net revenues, \$3,093,926; increase, \$1,252,243; operating income after taxes, \$2,811,925; increase, \$1,222,243.

### New Freight Station at Parkersburg.

The Baltimore & Ohio Railroad Co. will build a new freight station and other facilities at Parkersburg, W. Va., which will necessitate an expenditure of \$300,000. The plans have just been announced. Besides the station, there will be a transfer platform, team tracks and offices. The station will be located at the corner of

4th and Avery streets, and will be built of brick. It will be 500 feet long and 35 feet wide. The offices will be in a second story at the corner, with the office entrance on 4th street by means of a bridge over the driveway, which is 12 feet lower than the street. There will be two platforms running the whole length of the station, one 8 feet wide and the other 15 feet wide, the latter being the transfer platform. The tracks will have a capacity of 60 cars at the freight house.

The grading of the lot upon which the building will be situated, the retaining wall along 4th street, sewers and city drainage have been finished in accordance with an agreement between the city and the railroad company, which will pave 3d and Avery streets for the city.

The improvement will provide facilities for adequately taking care of local business requirements and handling the increasing volume of transfer shipments at Parkersburg. As soon as the contract is awarded, work will be started without delay.

### Rome Railway & Light's New Financing.

An offering of \$850,000 of 5 per cent. first mortgage bonds of the Rome (Ga.) Railway & Light Co. is being made by Spencer Trask & Co. of New York, this taking the place of the former first and consolidated mortgages. The authorized issue under this new mortgage is \$3,000,000, of which \$2,150,000 are reserved to be issued for not more than 80 per cent. of the net cash cost of additional property or equipment or permanent additions, extensions, betterments and improvements, but only when annual net earnings are twice the annual interest charges on all bonds outstanding as well as on those to be issued.

### Double Track Construction at Macon.

The contract awarded by the Southern Railway to M. M. Elkan of Macon for grading and concrete work there covers the construction of the double track connection, a little more than a half mile long, from the main line to the new passenger terminal station now being completed for the use of the Southern, the Central of Georgia and the Georgia Southern & Florida lines. This connection, which will be exactly 0.54 mile in length, will include a reinforced concrete viaduct 650 feet long, while the rest will be approach fills.

### \$1,000,000 Grain Elevator Contemplated.

That the Norfolk & Western Railway is giving attention to plans contemplating the construction of a \$1,000,000 grain elevator at Norfolk is reported, facilities of this character having been discussed some months ago. Regarding this report the company's president, L. E. Johnson of Roanoke, wires the MANUFACTURERS RECORDS: "Situation relative to elevator for Norfolk remains one of investigation; no decision reached."

### Coast Line Buys Waterfront Terminal.

The Atlantic Coast Line has bought for \$100,000 a tract of waterfront property at the foot of York and Bute streets in Norfolk, Va., the purchase being made from the Hilliard Point Corporation by the Atlantic Land & Improvement Co., a subsidiary of the railroad. An official statement says the property was acquired to increase the railroad's terminal facilities, but plans are yet undeveloped, and the exact use to which it will be put cannot now be stated.

### A Word of Warning from the Du Ponts.

Through its publicity bureau E. I. du Pont de Nemours & Co. wires the MANUFACTURERS RECORD as follows:

There is no warrant for the recent published statement that after the close of the war nearly the entire Carney's Point plant will be turned to making dyestuffs and other products. As outlined by P. S. du Pont in his annual report, it is hoped that new manufactures will be developed to take the place of the abnormal military business, but we cannot expect to employ all of the large explosive plants recently built. This applies to Hopewell as well as Carney's Point.

## Good Roads and Streets

### SOUTHERN HIGHWAY ACTIVITIES.

#### Record of Week's Progress in Improvements in City and Country.

Details in regard to road and street undertakings and bond issues, briefly mentioned below, are given under the proper headings in our "Construction Department" and "New Securities," published elsewhere in this issue.

#### Bonds Voted.

Gilmer, Tex.—Upshur county voted \$100,000 bonds to construct Jefferson Highway.

Greenfield, Mo.—Dade county voted \$25,000 bonds to construct roads.

Huntsville, Tex.—City voted \$30,000 bonds for paving, etc.

Savannah, Tenn.—Hardin county voted \$100,000 bonds for road construction.

#### Bonds to Be Voted.

Corpus Christi, Tex.—City votes July 8 on \$150,000 bonds to continue street paving, etc.

Greenville, N. C.—Pitt county will vote on \$100,000 bonds to construct roads.

Ooltewah, Tenn.—James county votes August 8 on \$25,000 bonds for road construction.

Ripley, W. Va.—Jackson county votes August 15 on \$8000 bonds for road construction.

Sinton, Tex.—San Patricio county votes July 8 on \$100,000 bonds for road improvements.

#### Contracts Awarded.

Bay Minette, Ala.—Baldwin county awarded \$110,000 contract for road construction.

Clearwater, Fla.—Pinellas county awarded \$26,700 paving contract.

Cold Springs, Tex.—San Jacinto county awarded contract for 35 miles of road construction.

Denton, Md.—City awarded \$18,181.51 contract for 10,000 square yards concrete paving.

Durant, Okla.—City awarded \$27,931.60 contract for street improvements.

Independence, Mo.—Jackson county awarded \$77,148.35 contracts for road construction.

Kennett, Mo.—City awarded \$11,000 contract for street paving.

Kinston, N. C.—Lenoir county awarded contract for 32 miles of sand-clay roads; \$30,000 available.

Macon, Miss.—Noxubee county awarded \$20,000 contract for road construction.

Newport, Ky.—City awarded \$18,725.36 paving contract.

New Orleans, La.—City awarded \$23,871 contract for wood block paving.

Norfolk, Va.—Norfolk county awarded contract for 8000 yards concrete paving.

Norfolk, Va.—City awarded contract for 3550 linear feet curb and gutter and 4700 square feet paving.

Petersburg, Va.—City awarded contract for 15,000 feet concrete curb and gutter and 10,000 square yards concrete walks.

Palatka, Fla.—Putnam county awarded contract for brick road construction; \$208,000 available.

Richmond, Va.—City awarded \$9060.28 contracts for street improvements.

Shelby, N. C.—City awarded \$43,946.50 contract for street improvements.

Sikeston, Mo.—City awarded \$13,823.22 contract for street improvements.

Stuttgart, Ark.—City awarded \$30,000 paving contract.

Towson, Md.—Baltimore county awarded \$95,000 contract for road improvements.

#### Contracts to Be Awarded.

Arcadia, Fla.—De Soto county receives bids until July 3 for 561,749 square yards paving.

Baltimore, Md.—State asks bids until July 5 to build 50.23 miles of State highway.

Bonham, Tex.—Fannin county will expend \$35,000 on road construction.

Cleveland, Miss.—City asks bids until June 20 to construct 10,000 linear feet gravel pavement; cost \$14,000.

Cold Spring, Tex.—San Jacinto county will construct 18 miles of sand-clay roads.

Dadeville, Ala.—Tallapoosa county receives bids until July 10 for 123 miles of road construction.

Easton, Md.—Talbot county receives bids until June 27 to construct two miles of State-aid highway.

Eastville, Va.—Capeville Road Commission will construct 25 miles of sand-clay road.

Fort Myers, Fla.—Lee county receives bids until June 21 to hard-surface 9½ miles of road.

Galveston, Tex.—City will construct 1255 square yards concrete paving and 1680 linear feet concrete coping.

Georgetown, Ky.—Scott county will construct 5½ miles of roads.

Greenville, Miss.—Washington county will construct 144 miles of concrete roads.

Greenville, N. C.—City asks bids until July 6 for street improvements; 30,000 square yards brick, asphalt or other pavement; 25,000 linear feet granite curb, 20,000 linear feet concrete gutter, 1000 square yards sidewalks, etc.

Henderson, N. C.—City will construct 35,000 feet of concrete curb and gutter.

Illmo, Mo.—City will pave several streets with concrete; 6300 cubic yards excavation, 5000 linear feet combination curb and gutter, 4989 square yards plain concrete, 3700 square yards reinforced concrete.

Lexington, Miss.—Holmes county will construct 27 miles of macadam road.

Morganton, N. C.—Town will construct 6000 yards of concrete paving.

Owenton, Ky.—Owen county will reconstruct 32 miles of macadamized roads; \$30,000 available.

Pontotoc, Miss.—Pontotoc county will construct 25 miles of roads.

Princeton, Ky.—Caldwell county will construct 2½ miles of Eddyville pike; estimated cost \$12,000.

Reidsville, N. C.—City will grade and pave 20,000 square yards with sheet asphalt.

Rogersville, Tenn.—Hawkins county will improve 90 miles of road.

Sapulpa, Okla.—Creek county will construct 20 miles of macadam roads, etc.

Stuttgart, Ark.—City receives bids until June 21 for 27,800 linear feet concave gutter, 4570 linear feet combined curb and gutter and 35,629 square yards pavement.

Tarboro, N. C.—Edgecombe county will construct 10 miles of sand-clay roads.

Tuscumbia, Ala.—Colbert county receives bids until July 12 to improve eight miles of road.

Washington, N. C.—Beaufort county will construct 80 miles of road.

Warrenton, Va.—Warrenton & Fairfax Turnpike Co. will construct 22 miles of highway.

Wickliffe, Ky.—Ballard county receives bids until June 16 to construct 54.88 miles of gravel roads.

Winona, Miss.—Montgomery county will construct 13 miles of macadam or gravel highway.

### To Build Highway Across Salt Marshes Between East and West Pascagoula Rivers.

As soon as necessary bonds are sold work is to commence on a highway over the three miles of salt marshes between East and West Pascagoula rivers, which is to connect Gautier and Pascagoula, Miss.

The project calls for a steel bridge 20 feet wide over the West Pascagoula River, a road through the marshes to be two feet above high water and 20 feet wide, with a 32-foot base, the necessary fill to be taken from a three foot wide by six-foot deep canal dug along the north side of the road, while a 40-foot gasoline-driven ferry will be used over the East Pascagoula River, forming the connecting link with Pascagoula.

Supervision of the work is under Road Commission, District No. 3 and 4, F. H. Lewis, chairman, and W. W. Grinstead, secretary, both of Pascagoula, and David U. Harris, Mobile, Ala., is the engineer in charge.



# TEXTILES

## Growth of Hosiery and Knit Goods Industry.

There was a gain of 17.1 per cent. in the number of establishments manufacturing hosiery and knit goods in 1914 over 1909, and the value of their products increased during this period by 29.9 per cent., according to the preliminary figures given in a summary of this industry by the Census Bureau. Returns were received from 1647 establishments engaged in the manufacture of hosiery and knit goods in 1914, producing an output valued at \$263,925,855, or \$60,806,579 more than the 1909 production of 1406 establishments, which was valued at \$203,119,276.

That the South, with the exception of North Carolina, is woefully behind in this industry is shown by the fact that 1325 establishments, or over 80 per cent., are located in the seven States of Pennsylvania, New York, Massachusetts, North Carolina, Wisconsin, New Jersey and Illinois, in the order named, and the remaining 322 establishments are scattered over 27 States, ranging from one each in six States to 39 in Ohio. Furthermore, the South is not keeping pace with the growth of this industry. Of the total gain of 241 establishments for the whole country in 1914, 152, or 63 per cent., were located in New York and Pennsylvania, while New York alone reported 123 new factories, or 51 per cent. of the total increase.

The greatest percentage of increase was made in the manufacture of silk and silk-mixed hosiery and half-hose, which jumped from 434,414 pairs, valued at \$5,600,416, in 1909, to 7,000,296 pairs, valued at \$26,538,697, in 1914, an increase of 6,565,882 pairs, or 1511.4 per cent., with a corresponding increase in value of \$22,938,281, or 637.1 per cent. Following this heavy increase in silk and silk-mixed hosiery, there was a gain of 352.2 per cent. in quantity and 364.7 per cent. in value in the manufacture of astrakhan and similar fabrics, and combination suits increased 154.1 per cent. in quantity and 139.9 per cent. in value during the same period.

Hosiery of all kinds increased in 1914 over 1909, 19.7 per cent. in quantity and 42.8 per cent. in value; the total value of underwear increased 10.3 per cent., while there was a decrease of 17.3 per cent. in value and 14.1 per cent. in the number of undershirts and drawers, caused largely by the greater output of combination suits; sweaters increased 1.2 per cent. in quantity and 16.8 per cent. in value, and cotton yarn increased in value from \$1,568,417 to \$3,990,349 in 1914, or 154.4 per cent.

In order to take care of the hosiery and knit-goods development, there was an increase of 14.7 per cent. in the sets of cards employed, 14.3 per cent. in the number of producing spindles, 159.8 per cent. in the number of doubling and twisting spindles, and 48.9 per cent. in sewing machines, while knitting machines of the spring-beard needle type decreased 6.8 per cent. for those using power and 36 per cent. for the hand-operated ones, and the latch needle knitting machines showed a decrease of 4.5 per cent. for those operated by hand, but a 30.8 per cent. increase for the power-driven type.

The Census Bureau has issued the following comparative summary of the manufacture of hosiery and knit goods in the United States, 1914 and 1909:

	1914.	1909.	P. C. of increase, 1909-1914.
Number of establishments... (1)	1,647	(1) 1,406	17.1
<b>Products.</b>			
Total value..... (1)	\$263,925,855	(1) \$203,119,276	29.9
<b>Hosiery:</b>			
Dozen pairs.....	75,227,704	62,825,069	19.7
Value .....	\$98,136,265	\$68,721,825	42.8
<b>Hose (except silk and silk-mixed—)</b>			
Dozen pairs.....	39,728,967	34,499,562	15.2
Value .....	\$44,046,972	\$37,903,011	16.2
<b>Half hose (except silk and silk-mixed—)</b>			
Dozen pairs.....	28,498,441	27,891,093	2.2
Value .....	\$27,550,596	\$27,218,398	1.2
<b>Silk and silk-mixed hose and half hose—</b>			
Dozen pairs.....	7,000,296	434,414	1,511.4
Value .....	\$26,538,697	\$5,600,416	637.1
Underwear, total value.....	\$93,153,515	\$84,446,353	10.3
<b>Shirts and drawers (separately—)</b>			
Dozen pieces.....	21,758,775	25,337,779	-14.1
Value .....	\$57,523,051	\$69,592,817	-17.3
<b>Combination suits—</b>			
Dozens .....	6,283,360	2,473,103	154.1
Value .....	\$38,630,464	\$14,553,536	139.9
<b>Sweaters:</b>			
Dozens .....	2,249,142	2,221,410	1.2
Value .....	\$26,195,002	\$22,430,517	16.8

	1914.	1909.	P. C. of increase, 1909-1914.
<b>Gloves and mittens:</b>			
Dozen pairs.....	2,470,183	2,537,889	-2.3
Value .....	\$10,519,613	\$7,296,587	44.2
<b>Hoods, scarfs, etc.:</b>			
Dozens .....	987,178	888,223	11.1
Value .....	\$3,456,326	\$3,217,985	7.4
<b>Bathing suits:</b>			
Dozens .....	274,544	(2)	....
Value .....	\$2,033,889	(2)	....
<b>Shawls:</b>			
Dozens .....	63,264	218,923	-71.1
Value .....	\$713,515	\$916,294	-22.1
<b>Leggings:</b>			
Dozen pairs.....	71,901	65,326	14.7
Value .....	\$313,952	\$195,242	63.3
<b>All other fancy knit goods, value .....</b>			
	\$3,196,979	\$2,392,927	33.6
<b>Boot and shoe linings:</b>			
Square yards.....	6,221,691	9,726,770	-36.0
Value .....	\$670,695	\$1,206,464	-44.6
<b>Elderdown:</b>			
Square yards.....	2,654,418	1,298,322	58.2
Value .....	\$1,272,957	\$442,431	187.7
<b>Jersey cloth and stockinette:</b>			
Square yards.....	9,616,563	3,111,272	208.1
Value .....	\$3,622,544	\$784,355	361.9
<b>Astrakhan and similar fabrics:</b>			
Square yards.....	1,854,851	410,207	352.2
Value .....	\$1,351,653	\$269,323	364.7
Cotton yarn, value.....	\$3,990,349	\$1,568,417	154.4
<b>Woolen, worsted, and merino yarn, value.....</b>			
	\$141,491	\$217,114	-34.9
All other products, value.. (1)	\$15,257,767	(1) \$9,012,942	69.3

<b>Machinery.</b>			
Sets of cards.....	3,076	2,681	14.7
<b>Spindles:</b>			
Producing .....	834,485	729,935	14.3
Doubling and twisting..	17,765	6,839	159.8
Sewing machines.....	65,328	43,885	48.9
<b>Knitting machines:</b>			
Spring-beard needle—			
Power .....	16,138	17,308	-6.8
Hand .....	238	572	-36.0
Latch needle—			
Power .....	122,029	93,322	30.8
Hand .....	3,835	4,017	-4.5

(-) Decrease.  
(1) These figures include, for 1914, products valued at \$5,042,856, manufactured by 30 establishments engaged primarily in other industries, and for 1909, products valued at \$2,975,749, manufactured by 32 establishments engaged primarily in other industries. Since it is impossible to segregate the quantities and values of the various classes of hosiery and knit goods manufactured by these establishments, they are not included in the detailed statistics of products.  
(2) Not reported separately.

## \$1,000,000 Silk Mill Reported.

It is reported that A. C. Ernst of the Viscose Company, Marcus Hook, Pa., will build a \$1,000,000 silk manufacturing plant at Roanoke, Va. Four units are said to be contemplated, the first (expected to be completed by January 1) to be 1000 feet long by five stories high, occupying a 10-acre site.

## Textile Notes.

The Norcott Cotton Mills, Concord, N. C., will double spinning equipment by the installation of 6000 spindles.

Fred C. Chavez, care of the W. C. Munn Company, Houston, Tex., will establish a hosiery knitting mill, and wants the necessary machinery.

The Irene Mills, Gaffney, S. C., will meet on June 24 to consider increasing capitalization from \$50,000 to \$100,000.

The Thread Mills Co., Spray, N. C., and Monticello, Ind., proposes to build a knitting mill at Leaksville, N. C., but has not completed plans.

The Highland City Mills, Talladega, Ala., will install the electric drive, as recently stated. This company will purchase its electricity from the Alabama Power Co., but has not decided upon exact specifications of equipment. Its installation will be arranged for as soon as bids can be obtained and the machinery shipped.

C. E. Goodwin & Sons, Cumberland Gap, Tenn., lately noted to increase woolen mill capacity, have incorporated under their firm name with E. C. Hall of New York as president and C. E. Goodwin as secretary-treasurer. This company will install additional machinery and has purchased new equipment. It manufactures blankets, coverlets, etc.

The Crescent Hosiery Co., Scotland Neck, N. C., has awarded contract to Peyton Keel and T. W. Russell for building its mill to replace present structure. Its new building will be 110x63 feet, with ell 25 feet square, providing 18,000 square feet of floor space for the manufacturing department and 7000 square feet for dyeing. To its present equipment the company will add new machinery, arrange for the electric drive and install a water system.

## New Sulphuric Acid and Phosphate Plants at Baltimore.

The new acid plant of the Standard Guano Co. at Curtis Bay, Anne Arundel county, Md., for which ground was broken during the latter part of November, 1915, has been completed and is now in operation. The plant consists of a steel and brick structure 417 feet long, 85 feet wide and 65 feet high. The roof and sides of the building are covered with asbestos-protected metal, manufactured by the Asbestos Protected Metal Co. of Pittsburgh. The floors are of wood and concrete. The Richmond Structural Steel Co. of Richmond, Va., furnished the steel, and the building was erected by the Whiting-Turner Construction Co. of Baltimore. Four sulphur burners, several of which are now in operation, are to be placed in the building.

Before this plant was finished plans had been completed whereby it will be doubled in size and output. All the foundation work and a large part of the steel work has been finished. The addition will make the plant nearly 200 feet wide and as long as the present structure. There will be a total of eight burners for the manufacture of acid from Southern sulphur. The plant will have a total output of 200 tons of strong acid a day. The buildings will be similar in construction to those of the present plant, and will be constructed and furnished by the same companies.

The great demand for acid has caused the company to make these extensive improvements to the acid plant. Enormous prices are being paid by manufacturers of munitions of war for acids, and the fertilizer factories are finding it difficult to secure enough acid for the manufacture of their products. Only recently the Baugh Chemical Co. of Baltimore was forced to shut down its great plant and lay off about 2000 employees because of its inability to secure acid. The Standard company heretofore purchased most of the acid used in the manufacture of its products, but now it will not only be able to make enough to supply its own needs, but will be able to sell large quantities. The acid to be manufactured is 66 degrees Baume, and for uses of fertilizer manufacturers and others chamber acid will be used. The fertilizer department of the Standard company has an output of more than 100,000 tons a year.

It is interesting to note that plans for the new acid-phosphate plant of the company as announced in the MANUFACTURERS RECORD recently are now being prepared by Peter S. Gilchrist of Charlotte, N. C., who drew plans for the acid plant. This will be the largest of its kind in this section, and will have a daily output of 1000 tons, or a total of 365,000 tons a year. The plant will be erected on a part of the 20-acre tract owned by the company, and will be north of the present fertilizer plant and located directly on the water front of Curtis Creek, which has a natural channel of about 30 feet depth. It is hoped that the plans will be completed and contracts awarded so that actual work of construction will commence about July 15.

Upon the close of the war and the consequent decrease in the demand for manufacturing munitions of war it will be possible to keep the acid plant operating at its maximum output by using the acid for making acid phosphate.

A "non-climbable" fence made by the Cyclone Fence Co. of Waukegan, Ill., has just been completed around the entire tract owned by the company. The fence is built of steel wire and posts, and at the top it has a triangular form supporting barbed wire that prevents anyone from climbing over the fence from either side. The steel posts are imbedded in concrete to make a firm support.

## \$75,000 Pottery for Erwin, Tenn.

Arrangements are progressing for the establishment of a pottery recently announced as to be built at Erwin, Tenn. E. J. Owen of Sistersville, W. Va., who, with associates, is planning this enterprise, advises the MANUFACTURERS RECORD:

"The plant will be built of brick, one story high, with three 18-foot bisque kilns and four 16-foot six-inch glost kilns and six decorating kilns. The building will be approximately 600 feet long by 158 feet wide. We will manufacture a high grade of semi-porcelain decorated chinaware. We will have a capacity of between \$350,000 to \$400,000 per year, and will employ about 300 people. The approximate cost of the plant will be about \$75,000."

# Construction Department

## IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

### HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the post-office will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

### WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

### DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

### BRIDGES, CULVERTS, VIADUCTS

Fla., Jacksonville.—Duval County contemplates voting on probably \$750,000 bonds to construct bridge over St. Johns River connecting Jacksonville and South Jacksonville; steel on concrete piers; double-leaf bascule span 322 ft. wide; 60 ft. high over river. (Lately noted.)

Ga., Washington.—Wilkes County Comms., Washington and McDuffie County Comms., Thomson, Ga., let contract Austin Bros., of Atlanta, Ga., at \$4150 to construct steel bridge over Little River at Fishdam Ford.

La., Abbeville.—Vermilion Parish, Third Ward Road Dist. will construct concrete bridges and grade roads. Address Police Jury.

Md., Baltimore.—Maryland State Roads Com., F. H. Zouck, Chrmn., 601 Garrett Bldg., asks bids until July 5 on bridge construction; Howard county; re-erect 2 steel bridges and construct new concrete bridge; all on Clarksville pike between Ellicott City and Elloak. (See Machinery Wanted—Bridge Construction.)

Miss., Macon.—Noxubee County will construct 4 concrete or brick bridges; County Supvrs. receive bids until July 5; John A. Tyson, Chancery Clerk. (See Machinery Wanted—Bridge Construction.)

N. C., Washington.—Beaufort County Comms. and city of Washington appropriated \$15,000 to construct concrete bridge across Pamlico River.

Okl., Tulsa.—Tulsa County Comms., Lewis Cline, County Clerk, ask bids until July 3 to construct 17 steel bridges; plans and specifications on file with county clerk and with County Engineer at Court House. (See Machinery Wanted—Bridges (Steel).)

Tex., Austin.—City authorized McCall-Moore Engineering Co., of Waco, Tex., to sublet contract to construct reinforced concrete bridge over Shoal Creek at 12th St., to A. A. Mundt, of Austin; original contract price, \$7000; Bartlett & Ranney, Consit. Engrs., San Antonio. (McCall-Moore Company noted in February as securing this contract.)

Tex., Dallas.—City will construct east approach to Commerce St. viaduct and

change grade of Commerce St., between Houston St. and Broadway; bids until June 21; Alex. Sanger, Chrmn. of Committee. (See Machinery Wanted—Viaduct Construction.)

W. Va., Hadley.—Chesapeake & Ohio Ry., F. I. Cabell, Ch. Engr., Richmond, Va., let contract Major Bros. & Carpenter of Clifton Forge, Va., to construct concrete bridges and culverts and to fill in all along trestles.

W. Va., Seth.—Chesapeake & Ohio Ry., F. I. Cabell, Ch. Engr., Richmond, Va., will construct 2 bridges and a number of culverts on 14-mi. railroad from Seth to Jarrolds Valley; Boxley Bros. Co., Orange, Va., Contr.

### CANNING AND PACKING PLANTS

Fla., Indianola.—Merritt Island Packing Co., capital \$10,000, inceptd.; C. L. Hill, Prest.; St. Clair Nisbet, V.-P.; John E. Reed, Secy.-Treas.

Miss., Biloxi.—Fisherman's Co-operative Union, Gulfport, Miss. (lately noted inceptd., capital \$22,000, by Wm. Estopinal and others), contemplates opening bids in 5 or 6 months on 500x60-ft. ordinary construction building and 1000-ft. wharf; to can shrimp, oysters and vegetables; also manufacture ice. (See Machinery Wanted—Boilers; Pumps.)

Mo., St. Louis.—Missouri Food Packing Co., capital \$2250, inceptd. by R. J. Kirkwood, Lucius Robb, Harry Sullivan and others.

S. C., Orangeburg.—Orangeburg Packing Co., capital \$200,000, organized by Robt. Lide, J. M. Albergotti, J. T. Liles and others; will establish packing plant. (Noted in May.)

### CLAYWORKING PLANTS

Tenn., Erwin.—Chinaware.—E. J. Owen, 215 Charles St., Sistersville, W. Va., and others will build \$75,000 pottery to manufacture semi-porcelain decorated chinaware; advises Manufacturers Record: Plant to include 1-story, 600x158-ft. brick building, with three 18-ft. bisque kilns and four 16-ft. 6-in. glaze and six decorating kilns; now considering details. (Mr. Owen and others lately noted to build pottery.)

### COAL MINES AND COKE OVENS

Ala., Birmingham.—Semet-Solvay Co., A. F. Hilleke, Gen. Mgr., Solvay, N. Y., negotiating (with Alabama Company) for several thousand acres coal land with view to development and construction of coke ovens; advises Manufacturers Record that nothing further is ready for announcement.

Ala., Birmingham.—Semet-Solvay Co., A. F. Hilleke, Gen. Mgr., Solvay, N. Y., negotiating (with Alabama Company) for several thousand acres coal land with view to development and construction of coke ovens; E. N. Rich, Chrmn. Directors of Alabama Company, Union Trust Bldg., Baltimore, Md.

Ky., Jeff.—Kenmont Coal Co., Zanesville, O., organized; C. A. Case, Prest.; L. K. Brown, Secy.-Treas.; J. Bailan, Mine Mgr.; will develop 2000 acres; daily capacity 1500 tons; shipping point, Hamdin, Ky., 5 mi. from Hazard; J. B. Allan, Constr. Engr.; lately noted—under Ky., Hamdin—as proposing \$125,000 investment in machinery, electric equipment, miners' houses, etc. (See Machinery Wanted—Mining (Coal) Equipment.)

Ky., Middlesboro.—Climax Coal Co. will develop additional coal mine.

Ky., Whitesburg.—Elkhorn By-Products Co., capital \$20,000, inceptd. by Sam Collins and Lewis Harvie of Whitesburg, Perry Gorman of Hazard, Ky., and others.

### CONCRETE AND CEMENT PLANTS

S. C., Charleston.—Roofing.—Charleston Cement Products Co., P. L. Bissell, Jr., Prest., will install machinery and double capacity of plant. (Noted in May as inceptd. with \$5000 capital to manufacture Cementile fireproof roofing.)

### COTTON COMPRESSES AND GINS

Fla., Jacksonville.—Mikel Gin Co., capital \$15,000, inceptd.; C. P. Kendall, Prest., Jacksonville; M. D. Mikel, V.-P., Arabi, Ga.; C. H. Pillsbury, Secy.-Treas., Jacksonville.

Fla., Summerfield.—Farmers Gin & Mill Co. is reported to build cotton gin and probably corn and peanut mill.

Ga., Butler.—G. C. Smith will establish cotton gin; purchased machinery.

Miss., Clarksdale.—Peoples' Compress Co. let contract M. H. Ellis of Clarksdale to construct 5 fireproof concrete compartments with capacity of 5000 bales cotton each; 18-in. brick firewalls between compartments. (Supersedes recent item.)

Miss., Tupelo.—Tupelo Compress & Storage Co. organized with J. M. Thomas, Prest.; C. R. Strain, V.-P.; R. L. Taylor, Gen. Mgr.; capital \$50,000; will build high-density cotton compress.

Tex., Bristol.—People's Gin Co., Crisp, Tex., R. F. D. 1, organized; W. W. Gray, Prest.; O. A. Bentley, V.-P.; J. H. Sparkman, Secy.; H. B. Harville, Treas. and Mgr.; erect 20x71-ft. corrugated iron \$900 building; install \$6000 equipment; daily capacity 30 bales cotton. (Lately noted inceptd., capital \$8000.)

Tex., Irene.—Farmers' & Merchants' Gin Co. reorganized with Geo. G. White, Prest.; will build cotton gin operated by electricity.

Tex., Luling.—Luling Gin Co., Carl Ecklund, Prest.-Mgr., constructing lately noted cotton gin; 83x42-ft. ordinary construction building; machinery contract let; ginning and baling cotton. (See Machinery Wanted—Electric-light Plant.)

Tex., Rockwall.—Union Gin Co., capital \$15,000, inceptd. by S. S. Dudney, J. Henry Williams and L. J. Mason.

### COTTONSEED-OIL MILLS

S. C., Pauline.—Pauline Oil & Fertilizer Co., capital \$6000, inceptd.; E. F. McWhirter, Prest.-Treas.; S. T. D. Lancaster, V.-P.; Angus Morrow, Secy.

Tex., Dallas.—Cottonseed Oil Co., capital \$135,000, inceptd. by Geo. Dashner, W. C. Barnes and W. W. Banks.

### DRAINAGE SYSTEMS

Ga., Monroe.—Alcoy River Drainage Dist. let contract Karr & Moore of Salisbury, N. C., to drain Alcoy River and 5 lateral streams.

La., Plaquemine.—Bayou Paul Drainage Dist. of Iberville Parish (lately noted) will

dredge 70,000 cu. yds. earth from Bayou Paul, between Grenada Swamp and Spanish Lake, about 8 mi.; Comms., G. W. Sitman, Prest., Burtville, receive bids until June 30. (See Machinery Wanted—Drainage Construction.)

Mo., Birmingham.—Supvrs. Birmingham Drainage Dist., John H. Powell, Secy., 312 Reliance Bldg., Kansas City, Mo., will construct levee or earth embankment, Missouri River bottoms, Clay County; includes 10.73 mi. levee; 1,200,000 cu. yds. earth embankment; 10,343 ft. rock paving; bids until June 27; Brooks & Jacoby, Engrs., 513 Shukert Bldg., Kansas City, Mo.; advice published by Manufacturers Record in 1915 noted estimated total cost at \$335,400. (See Machinery Wanted—Drainage.)

### ELECTRIC PLANTS

Ark., Fort Smith.—Fort Smith Light & Traction Co. is having surveys made for extension of Van Buren electric transmission system to smelter of Arkansas Zinc Co. and probably to Alma.

Ark., Leachville.—E. Johnson and J. T. Alford of Blytheville, Ark., have franchise to build electric plant and ice plant; cost \$5000; erect buildings and install machinery.

Ga., Macon.—City was lately incorrectly noted as voting June 16 on bonds for improvements to water and light plants.

Ky., Hazard.—Kentucky River Power Co., R. L. Cornell, Gen. Mgr. and Engr., has final plans and specifications for \$200,000 steam-driven electric generating station; 100x85 ft. steel frame building, with brick walls, concrete floors and roof; now receiving building bids through H. W. Saunders, Welch, W. Va., also in charge purchase of conveying machinery; install 2 1875 K. V. A. Westinghouse steam turbines and 2 500 H. P. boilers with automatic stokers; 150-ton steel bunker over boiler-room; conveyor from coal tipple and over boiler-room; elevator; all machinery except conveyor has been purchased. (Previously noted.)

Ky., Horse Cave.—Horse Cave Light & Ice Co., capital \$25,000, inceptd. by J. P. Todd, Mary G. Todd and W. C. Davis.

Miss., Florin.—City adopted plans and specifications by Xavier A. Kramer, Engr., Magnolia, Miss., for electric-light system and sidewalk improvements; engineer will invite bids on material and equipment.

Mo., Brookfield.—City is considering plans for construction of electric-light plant and water-works. Address The Mayor.

Mo., Breckenridge.—Hamilton Electric Light Co., Hamilton, Mo., contemplates extending electric transmission system to Breckenridge.

Mo., Kirkwood.—United Railways Co., Richard McCulloch, V.-P., St. Louis, will construct electric substation.

Mo., Marshall.—City votes June 26 on \$70,000 bonds to construct electric-light plant; Henriel, Kent & Lowry, Engrs., 716 Reserve Bank Bldg., Kansas City.

Mo., Trenton.—Village will construct electric-light system; 35 to 40 H. P. oil engine directly connected to 25 K. W. direct-current generator, storage battery, switchboard; pole line and street-lighting system; brick power station; Fairbanks, Morse & Co., Engrs., Omaha, Neb.; A. L. Taylor, Village Clerk.

N. C., Pilot Mountain.—Job Hiatt, of Pilot Mountain, and Dan Chatham, of Winston-Salem, N. C., contemplate constructing electric-light system.

Okl., Blackwell.—City let contract to Manhattan Electrical Supply Co., St. Louis, Mo., for 10,000 ft. 2-conduction No. 8 steel tape jute-covered underground cable; asks bids until June 14 to furnish ornamental street-lighting system, including 110 1000-candle-power single-light standards, 2 30 K. W. constant-current transformers and 2-circuit switch panel; Benham Engineering Co., Engr., Colcord Bldg., Oklahoma City; noted in Apr. (See Machinery Wanted—Electric-light Equipment.)

Okl., Hydro.—J. D. Palmer has franchise to construct electric light system. (City lately noted to vote on granting franchise.)

Okl., McCurtain.—City contemplates \$30,000 bond issue to construct electric-light system. Address The Mayor.

Okl., Milburn.—City votes June 16 on \$9000 bonds to construct electric light system. Address The Mayor.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



Okl., Waukeet.—City is reported to vote on \$800 bonds to construct electric light system. Address The Mayor.

Tenn., Lewisburg.—Public Light & Power Co., Chattanooga, Tenn., purchased Lewisburg Light & Power Co.; operates in about 20 towns in district and contemplates constructing electric transmission line to connect Lewisburg with its system.

Tex., Dallas.—North Texas Pre-Pay Fan Co., 415 Southwestern Life Bldg., lately noted inceptd., capital \$20,000, organized to lay electric pre-pay fans and lease them to hotels, hospitals, etc.; W. J. Matheny, Pres.; E. H. Thornhill, Secy.-Treas.

W. Va., Hutchinson.—Monongahela Valley Traction Co., Fairmont, W. Va., will install fourth unit in Hutchinson electric plant.

### FERTILIZER FACTORIES

La., Darlington.—St. Helena Potash Co., 228 Howard Ave., New Orleans, inceptd. with capital stock \$100,000; W. F. Denny, Pres.; T. L. Venable, V.-P.; W. S. App, Secy.; Frank Frey, Treas.; erect plant to grind and crush rock and use it in fertilizer manufacture; specialize on fertilizer for fruit growers; has camps at Darlington, on Darlings Creek; soon have factory site ready. (Under Mining lately noted to develop potash deposits on 3300 acres. See Mining.)

S. C., Pauline.—Pauline Oil & Fertilizer Co., capital \$6000, inceptd.; E. F. McWhirter, Pres.-Treas.; S. T. D. Lancaster, V.-P.; Angus Morrow, Secy.

Tex., Douglasville.—T. S. Granberry, Box 3, may install fertilizer mining equipment. (See Machinery Wanted—Fertilizer Mixer.)

### FLOUR, FEED AND MEAL MILLS

Ala., Andalusia.—Sessoms Grocery Co. will rebuild grist mill and crusher reported burned.

Fla., Summerfield.—Farmers Gin & Mill Co. is reported as contemplating erection of corn and peanut mill. (See Cotton Compresses and Gins.)

N. C., Durham.—Austin-Heaton Co., A. H. Carr, Pres., will erect new 5-story, 84x35-ft. building, 72 ft. high; concrete, lined with brick; has let machinery contract to Nordyke & Marmon Co., Indianapolis, Ind., Archts. for the building; plant to cost about \$100,000; building increases elevator capacity 50,000 bu. (Lately noted.)

Okl., Temple.—Temple Milling Co. organized; W. T. Adair, Pres.; R. A. Yielding, V.-P.; J. W. Enochs, Secy.-Mgr.; will install \$100,000 machinery, with daily capacity 200 bbls. flour and 100 bbls. meal; has let building contract.

Tenn., Huntland.—Huntland Milling Co., capital \$10,000, inceptd. by Frank Baker, G. T. Stroud, R. E. Horton and others.

Va., Quantico.—Benj. Masolett, of Catlett, Va., contemplates building flour mill.

W. Va., Charleston.—Christie-Mer Feed Co., capital \$25,000, inceptd. by E. M. Christie, M. D. Arnold, Orle Myers and others.

### FOUNDRY AND MACHINE PLANTS

Ala., Birmingham.—Foundry Equipments.—Logansport Radiator Equipment Co., Logansport, Ind., writes to Manufacturers Record: Have not as yet taken any definite action in regard to Southern location. (Previously reported to build plant; manufactures radiators, radiator patterns and foundry equipments.)

Ala., Birmingham.—Machinery.—Joubert & Goslin Machine & Foundry Co., capital \$275,000, inceptd. by Julius Goslin (Pres. and Gen. Mgr.), Birmingham, Ala.; Fred L. Joubert, Walter H. Cook and Mrs. Leon Joubert; wires Manufacturers Record: Purchased plants of Payne & Joubert Machine & Foundry Co. at Birmingham and New Orleans; no additions contemplated at present.

Ala., Birmingham.—Soil Pipe and Fittings. Somerville Iron Works, Somerville, N. J., advises Manufacturers Record: Have abandoned idea of building plant in South for the present. (Previously reported planning to build.)

Ark., Yellville.—Machine Shop.—J. E. and Ross Lee and J. F. Green of Springfield, Mo., will build foundry and machine shops.

Ga., Atlanta.—Plows.—Atlanta Plow Co. will erect addition to plant.

Miss., Greenwood.—Machine Shop.—Mississippi Deaf and Dumb Institute plans to rebuild industrial plant reported burned at loss of \$75,000. H. Clay Roberts, Chrmn., Trustees.

N. C., Newbern.—Iron Works.—Newbern Iron Works & Supply Co. will erect 200x100-ft. building; equip to manufacture discharge

pipe for hydraulic dredges; daily capacity 35 lengths; building plans and construction by the company; equipment, including punches, drills, plate rolls and air tools, purchased, cost \$1800; E. L. Willis, Pres.; J. C. Hill, V.-P.; W. A. McIntosh, Secy.-Treas.

Okl., Tulsa.—Pipe Welding.—Oklahoma Pipe Welding Co., capital \$2,000, inceptd. by D. B. Farnsworth, Jr., of Tulsa, Walter Z. Allen of Sapulpa, Okla., and Frank C. Mann of Springfield, Mo.

Tenn., Chattanooga.—Woodworking Machinery, etc.—Chattanooga Machinery Co. contemplates building plant; has temporary lease on portion of Chattanooga Stamping Co.'s plant and will install equipment.

Tex., Dallas.—Machine Shop.—City Comms. will erect machine shop for Fire Dept.; appropriated \$5500; invite bids until June 16.

W. Va., Fairmont.—Machine Shop, etc.—Nob Hill Co., capital \$10,000, inceptd. by J. M. Hartley, H. J. Hartley, Wm. C. DeVault and others.

### GAS AND OIL ENTERPRISES

Ala., Birmingham.—Filling Station.—Standard Oil Co. is reported to build filling station.

Ark., Camden.—Gaspine Line.—W. W. Brown asks franchise to lay gas pipes in streets.

Fla., Ocala.—Gas Plant.—Florida Utilities Corp. purchased Ocala Gas Co.'s plant; plans to enlarge, improve and lay several miles of mains; expend \$28,000.

Fla., Ocala.—Gas Plant.—J. Leffers Cunard, of Trenton, N. J., purchased Ocala Gas Co.'s plant; plans improvements to increase capacity.

Ga., Atlanta.—Gas.—Atlanta Gas Light Co. will lay 22 mi. of service and feed mains to supply College Park and East Point with gas; total of 12 mi. of feed mains; 5½ mi. of service line in College Park and 5 mi. in East Point; 3000 ft. feed mains already laid.

Md., Baltimore.—Gasoline.—The Gasoline Corp., Chas. J. Greenstreet, Pres., 115 Broadway, New York, is reported planning construction of gasoline factory costing \$1,000,000 to \$1,250,000; negotiating use Greenstreet process for manufacturing gasoline; negotiating for site on waterfront; Theo. Chas. Le Fevre, representative, registered at Hotel Emerson, Baltimore. (Lately incorporated with \$10,000,000 capital; acquires 3 plants of Consolidated Refining Co., 1 at Cleveland, Okla., and 2 at East St. Louis, Ill.)

Oklahoma.—Consolidated Petroleum Corp., capitalization \$7,000,000, inceptd. to develop several thousand acres oil land and leases in Oklahoma, Louisiana, Texas and Mexico; Chas. R. Porter, Pres., Rome, Ga.

Okl., Avant.—Halcyon Oil Co., capital \$5000, inceptd. by J. B. Willings, W. L. Hocker, Phil Hocker and W. J. Myers.

Okl., Bartlesville.—Pilot Oil & Gas Co., capital \$25,000, inceptd. by C. E. Burlingame, Hayes McCoy and John R. Kane.

Okl., Blackwell.—Alexander Oil Co., capital \$35,000, inceptd. by W. E. Treadway and others.

Okl., Claremore.—White Oil Co., capital \$50,000, inceptd. by Edgar Anderson and others.

Okl., Claremore.—LeMarr Oil Co., capital \$5000, inceptd. by Edgar Anderson and others.

Okl., Oklton.—Gasoline.—Carter Oil Co. will, it is reported, build \$150,000 to \$200,000 plant to manufacture gasoline from crude product.

Okl., Cushing.—Gas Pipe Line.—Roxana Petroleum Corp. (Royal Dutch Shell Corp.), Tulsa, is reported to construct 8-in. pipe line, 150 mi. long, from Healdton field in Carter County to Cushing; also reported to double capacity of oil refinery now being erected. (Noted in May to build refinery with daily capacity 10,000 bbls. oil and to install wax plant.)

Okl., Depew.—Gasoline.—Eastern Gasoline Co., capital \$50,000, inceptd. by I. G. Fleming, of Depew; J. W. King and W. J. Rowland, of Pittsburgh, Pa.

Okl., Drumright.—O'Dell Oil & Gas Co., inceptd. by Harry D. Adams and others; capital \$20,000.

Okl., Drumright.—Twenty Oil Co., capital \$20,000, inceptd. by J. H. Blume and others.

Okl., Hugo.—M. R. Oil & Gas Co., capital \$25,000, inceptd. by Ike Helligman and others.

Okl., Lawton.—Merchants & Travelers' Oil & Gas Co. inceptd. by M. A. Nelson and others; capital \$15,000.

Okl., Lawton.—Naamah Oil & Gas Co., capital \$20,000, inceptd. by Edward Newton, N. D. Newton and S. R. Harper.

Okl., Muskogee.—White River Oil & Gas Co., capital \$50,000, inceptd. by W. W. Rains and others.

Okl., Muskogee.—Briscoe Oil Co., capital \$25,000, inceptd. by W. M. Briscoe and others.

Okl., Muskogee.—Lowerre Oil Co., capital \$10,000, inceptd. by Geo. H. Lowerre, Jr., F. R. Jones and L. W. Randolph.

Okl., Muskogee.—Gasoline.—Sterling Gasoline Co., capital \$100,000, inceptd. by Geo. W. Sterling, Geo. A. Lowry and E. C. D'Yarmett.

Okl., Muskogee.—Spring Creek Oil & Gas Co., capital \$100,000, inceptd. by Barclay B. Rice and others.

Okl., Nowata.—Gasoline.—Salt Creek Gasoline Co., capital \$20,000, inceptd. by B. J. Arlen, Hugh J. Fretwell, C. F. Comstock and J. Wood Glass.

Okl., Oklahoma City.—Andy Oil Co., capital \$4000, inceptd. by A. O. Campbell and others.

Okl., Ringling.—Fort Ring Oil & Gas Co., capital \$25,000, inceptd. by R. O. Dulaney and others.

Okl., Sapulpa.—Oil Refinery.—Duluth Gas Oil Refining Co., capital \$140,000, inceptd. by C. W. Cross of Sapulpa, J. L. Hughey of Enid, Okla., and S. Momb of Duluth, Minn.

Okl., Tulsa.—Gasoline.—Jefferson Gasoline Co., capital \$400,000, inceptd. by Thos. Chestnut, T. K. Smith, T. J. Redd and others.

Okl., Tulsa.—Liquified Petroleum Gas Co., capital \$50,000, inceptd. by J. A. Hull and H. C. Tyrrell of Tulsa and W. L. Walker of Nowata, Okla.

Okl., Tulsa.—Oil Storage.—Concrete Oil Storage Co., capital \$250,000, inceptd. by M. J. Munn, E. R. Perry and H. A. Gibson.

Okl., Tulsa.—Melville Oil & Gas Co., inceptd. by M. A. Pallette and others.

Okl., Tulsa.—Gasoline.—Tidal Gasoline Co., capital \$100,000, inceptd. by Frank Haskell, C. E. Hane, W. M. Welch and others.

Tex., Corpus Christi.—Gas Plant.—North American Gas Co. of Pittsburgh, Pa., will apply for municipal franchise to furnish natural gas to Corpus Christi and adjacent territory; H. L. Cullinan of Houston and Laredo, Tex., is said to be local representative.

Tex., Houston.—Intercoastal Oil Co., capital \$100,000, inceptd. by J. A. Pfuger, R. B. Morris, A. W. Pfuger and Mrs. H. C. Morris.

Tex., Houston.—Humble Union Oil Co., capital \$60,000, inceptd. by Em R. Robinson, John D. Larkin and H. D. Lorch.

Tex., Kaufman.—Leggs Prairie Oil & Gas Co., capital \$10,000, organized with Geo. D. Fallis, Pres.; I. Kirkland, V.-P.; H. L. Mizell, Secy.-Treas.; has lease on 440 acres land and will drill for oil.

Tex., San Antonio.—Gasholder.—San Antonio Gas & Electric Co. will construct gasholder.

Tex., Taylor.—Elliott Oil & Gas Co., capital \$30,000, inceptd. by Robt. J. Eckhardt, J. A. Thompson and John E. Morris.

W. Va., Fairmont.—Gasoline.—Fairmont Gas Co. (Monongahela Valley Traction Co.) is reported to build factory with daily capacity 2000 gals. gasoline.

W. Va., Huntington.—Gas.—West Virginia Gas Co., capital \$500,000, inceptd. by Geo. W. Hendricks, Geo. L. Estabrook and M. G. Saunders, all of Philadelphia, Pa., and others.

### HYDRO-ELECTRIC PLANTS

Ga., Jackson.—Central Georgia Power Co., Macon, Ga., will install additional machinery in hydro-electric plant on Ocmulgee River; let contract for equipment costing \$58,500.

S. C., Parr Shoals.—Columbia Railway, Gas & Supply Co., Edwin W. Robertson, Pres., Columbia, S. C., will extend transmission system to meet increased demands for electricity; has hydro-electric plant at Parr Shoals.

### ICE AND COLD-STORAGE PLANTS

Ark., Leachville.—E. Johnson and J. T. Alford, of Blytheville, Ark., plan to install ice plant. (See Electric Plants.)

Ga., Athens.—J. C. Bloomfield will erect \$12,000 cold-storage warehouse, portion of which will be occupied by Armour Packing Co.

Ky., Russell.—Russell Creamery Co., Henry S. Klein, Mgr., will install machinery to manufacture ice. (See Miscellaneous Factories; also Machinery Wanted—Ice Machinery.)

Ky., Horse Cave.—Horse Cave Light & Ice Co., capital \$25,000, inceptd. by J. P. Todd, Mary G. Todd and W. C. Davis.

Miss., Biloxi.—Fisherman's Co-operative Union, Wm. Estopinal, Gen. Mgr., Gulfport, Miss., contemplates ice manufacture in connection with cannery to be erected in 5 or 6 months. (See Canning and Packing Plants.)

S. C., Clemson College.—Clemson College Co-operative Creamery & Poultry Assn. will install 4-ton refrigerating plant; let contract to Creamery Package Mfg. Co. of Chicago.

Tenn., Columbia.—Louis Barker is reported to erect building for cold storage plant; 100x112 ft.; 2 stories.

Va., Abingdon.—Abingdon Creamery & Ice Co., capital \$50,000, inceptd.; A. W. Buhman, Pres.; E. W. Potts, Secy.

W. Va., Clarksburg.—A. F. Hoffommer, 826 Goff Bldg., contemplates establishing ice and cold-storage plant.

### IRON AND STEEL PLANTS

Ala., Trussville.—Furnace.—F. A. Gorham, V.-P. Michigan Trust Co., Grand Rapids, Mich., advises Manufacturers Record: Negotiations are pending for sale of Trussville furnace, which is in our control; have not yet reached definite point; not at liberty to give names of possible purchasers, etc. (Lately noted.)

Md., Baltimore.—Steel Furnaces.—Hess Steel Co., Loney's lane and Pennsylvania R. R., will construct 22x13-ft. fireproof transformer building and 70x30-ft. semi-fireproof warehouse; let contract to Price Construction Co., 225 St. Paul St.; Blanks & Zink, Archts., Equitable Bldg.; both of Baltimore. (Previously detailed; plant partially completed and operating; \$1,500,000 capitalization.)

Va., Radford.—Iron Furnace.—Virginia Iron, Coal & Coke Co., Roanoke, Va., is arranging to blow in iron furnace.

Va., Roanoke.—Rolling Mill.—John Robinson, of Pittsburgh, Pa., leased Roanoke Rolling Mill; plans improvements; will manufacture bars, rails and other small products.

### LAND DEVELOPMENTS

La., Alexandria.—City votes July 11 on \$30,000 bonds to establish park. Address The Mayor.

La., Morgan City.—Land Trust Co., Wm. J. Castell, Mgr., New Orleans, organized with \$2,000,000 capital stock; develop 136,000-acre Terrebonne parish land, 8 mi. from Morgan City; silt formation; deep water on Atchafalaya River; will develop; scope of plan contemplates 10-year development; reclaim units of 5000 acres; construct levees and lateral canals; build homes for farms, units of 80 acres; plant orange and grapefruit trees; construct dwellings, barns, stables, water system, etc., for each farm.

Md., Bay Shore Park.—Bay Shore Park Development Co. (Harry B. Wolf, 204 Courtland St., Baltimore) will have surveys and plans made by J. Spence Howard, 11 E. Lexington St., Baltimore, for improvements to 561-acre tract; includes grading, filling and dredging 500,000 cu. yds.; construction 10 mi. roads and streets; parking and layout for future improvements; water-front property.

Md., Catonsville.—Hughes Manly is having survey of 235 acres (country home) prepared by J. Spence Howard, 11 E. Lexington St., Baltimore; view to improvements.

Miss., Yazoo City.—Delta Land Co. of Memphis, Tenn., purchased 3 plantations of Brewer & Castleman on Silver Creek, comprising 7000 acres, about 60 per cent. of which is under cultivation; plans to subdivide, improve and colonize with Northern settlers; also to build city near center of tract and provide water-works, electric-light system, sewers, cement walks, etc.; drill 4 artesian wells and pipe water to each farm; erect dwellings, barns, etc., to suit purchaser; purchaser takes possession Jan. 1.

S. C., Charleston.—Coastal Land Corp., capital \$3000, chartered by J. H. Armstrong and F. K. Seel.

Va., Bristol.—Bristol Improvement Corp., capital \$50,000, chartered; W. R. Stone, Pres.; Jas. A. Stone, Secy.-Treas.

### LUMBER MANUFACTURING

Ala., Marion.—Lee Saw Mill Co., capital \$12,000, inceptd. by John C. Lee, R. E. Lee and Sears Lee.

Ark., Elkins.—Noah Johnson & Sons will rebuild burned sawmill.

Ark., Wynne.—Jackson Lumber Co., capital \$50,000, inceptd. by Harry Jackson and R. H. Jackson, of Wynne; H. J. Jackson, of Flint, Mich., and others.

Fla., Ocala.—South Atlantic Lumber Co., capital \$10,000, inctpd.; Davis Moon, Prest.; R. G. Young, V. P.; Blain Hopper, Secy.-Treas.

Miss., Pittsboro.—Geo. C. Brown Lumber Co. is reported to build sawmill and develop timber land.

Miss., Scooba.—Harmon Lumber Co. (F. H. Harmon, El Cajon, Cal., and O. D. Harmon, Mgr.) is erecting \$2000 building; receiving bids on planing and sawmill machinery, cost about \$5000; daily capacity about 20,000 ft.

N. C. Rocky Mount.—Tar River Lumber Co. will rebuild sawmill lately noted burned at loss of \$25,000.

N. C., Waynesville.—North State Lumber & Mfg. Co., capital \$25,000, inctpd. by Alden Howell, S. H. Keller and C. G. Keller.

Okla., Idabel.—S. G. Swan Bois d'Arc Co., capital \$5000, inctpd. by S. G. Swan, L. L. Swan, J. A. Sharpe and M. L. Sharpe.

S. C., Beech Island.—Beech Island Lumber Co., capital \$50,000, inctpd. by L. Anderson, C. C. Anderson and A. J. Broom, all of Timmonsville, S. C.

Tenn., Maryville.—Babeck Land & Lumber Co., Pittsburgh, Pa., will develop 50,000 acres Monroe county timber and build large mill on 700-acre site; later will build plants to manufacture boxes, laths, furniture and other wood products; has 100,000 acres timber, mill at Tellico Plains and 25 mi. standard-gauge railway.

Va., Tappahannock.—Robt. Stubbs of Gloucester, Va., purchased timber tract and plans development.

W. Va., Dixie.—Bell Creek Lumber Co., capital \$50,000, inctpd. by Hurlburt Smith of Dixie, John Smith and John M. Nichols of Huntington, W. Va., and others.

W. Va., Huntington.—Duncan Lumber Co., capital \$15,000, inctpd. by M. L. Duncan, J. E. Duncan, O. E. Surlbaugh and others.

W. Va., Parkersburg.—Citizens' Lumber Co. will rebuild plant reported burned at loss of \$50,000.

### METAL-WORKING PLANTS

Fla., Jacksonville.—Keyless Locks.—Keyless Trunk Lock Co., A. W. Stoffregen, Prest. and Gen. Mgr.; lately noted inctpd., capital \$100,000; manufactures keyless trunk and suit case locks; is having locks made in Newark, N. J.

Va., Richmond.—Screens.—Richmond Strip & Screen Co., capital \$15,000, inctpd.; A. R. Hagner, Jr., Prest.; Fred S. Valentine, Jr., Secy.

### MINING

Ala., Clay County.—Graphite.—Grisemer Graphite Co., capital \$2000, inctpd. by W. H. McKleroy (V. P. Anniston City National Bank), I. J. Grisemer and J. F. Matthews, all of Anniston, Ala.; will build graphite plant. (Noted in May.)

Ala., Russellville.—Iron.—Sloss-Sheffield Steel & Iron Co., Birmingham, will add to iron-mining plant; install 2 steam shovels, 2 crushers, jigging equipment and ore washer.

Ark., Buffalo.—Lead and Zinc.—Will Castle, Ewing Robinson and Walter Tilley leased 40 acres mining land and plans development.

Ark., Mountain Home.—Zinc Sulphide.—E. M. Rosen and others contemplate development of zinc-sulphide mines.

Ark., Rush.—Zinc.—A. A. Webber, Secy., White River Development Assn., is organizing company to develop zinc mines.

Ga., Winder.—Asbestos.—Luther Arnold plans development of asbestos mines.

La., Darlington.—Potash.—St. Helena Potash Co., 938 Howard Ave., New Orleans, La., inctpd. with capital stock \$100,000; W. F. Denny, Prest.; T. L. Venable, V. P.; W. S. App, Secy.; Frank Frey, Treas.; erect plant to grind and crush rock for fertilizer; lately noted to develop 3300 acres; camps at Darlington, on Darlings Creek. (See Fertilizer Factories.)

Mo., Galena.—Lead and Zinc.—Andrew Brothers leased 40-acre lead and zinc property; will mine; contemplate building 200-ton concentrating plant. (Supersedes May item under Joplin.)

Mo., Joplin.—Lead and Zinc.—Eagle White Lead Co., capitalization \$10,000,000, elected O. S. Pieher, Prest., Joplin; R. W. and S. M. Evans, V. P.'s; Jos. Hummel, Jr., Treas.; Thos. S. Brown, Secy.; each of Cincinnati; acquires Pieher Lead Co.; properties include lead and zinc mines in Joplin district and plants at Joplin, Galena (Kan.), Cincinnati, Chicago, New York and Newark. (Detailed in May.)

N. C., Wendell.—Stone.—Paul-Morris Co. organized; Chas. Paul, Newsom, N. C.,

Prest.; H. C. Morris, V. P., Treas. and Mgr.; T. M. Mecum, Walkertown, N. C., Secy.; is operating company of Granita Quarry at Knightdale, N. C., and Rockton Quarry of Wendell; has machinery.

Okla., Lincolnville.—Pt. Frances Mining Co., capital \$10,000, inctpd. by W. S. Weyer, of Kansas City, Mo., and others.

Tenn., Ducktown.—Copper.—Tennessee Copper Co., 2 Rector St., New York, will rebuild copper mining and manufacturing plant burned in March; fireproof construction; may also build nitrate plant.

Tenn., Valley Forge, P. O. at Elizabethton.—Manganese Iron.—A. D. Reynolds and H. W. Reynolds of Bristol, Tenn., will develop 4000 acres manganese-iron property at Valley Forge.

Tex., Dallas.—Iron Ore.—Linden Iron Ore Co., capital \$10,000, inctpd. by A. B. McCauley, A. S. Barnett and Walter I. McConnell.

### MISCELLANEOUS CONSTRUCTION

Ga., Bainbridge.—Swimming Pool.—Bainbridge Ice Co. contemplates constructing swimming pool; freeze pool in winter for ice-skating rink.

Md., Baltimore.—Railway Tunnel.—Pennsylvania R. R. let contract McMullen & Melvin Co., New York, for improving Union tunnel from Union Station to Fulton Ave.; widen tunnel, lay concrete, build several additional tracks, etc. (Noted in February as to lower tracks 2 ft. 6 in. and complete invert started some years ago; after completing invert will lay tracks on concrete base; in lowering tracks will tunnel sidewalks to provide additional clearance and a 12½-ft. distance from center to center of tracks.)

Miss., Clarksdale.—Pumping Plant Equipment.—Yazoo and Mississippi Delta Levee Board, T. G. Dabney, Chief Engr., will install pumping plant; bids until July 3; centrifugal pump, horizontal return-tubular boiler, surface condenser, pipe line, concrete and frame pumping station, etc.; Thos. H. Allen, Consult. Engr., 205 Bank of Commerce Bldg., Memphis, Tenn. (See Machinery Wanted—Pumping Plant Equipment.)

Mo., Kansas City.—Mausoleum.—Kansas City Mausoleum Co., organized with Jas. Tappen, Prest.; E. E. Violett, Secy., and Gen. Mgr.; B. H. McGarvey, Treas.; has plans by Jas. Oliver Hogg, of Kansas City, for mausoleum; circular structure 100 ft. in diam.; reinforced concrete; granite exterior; interior finished in white marble and bronze trimmings; dome 55 ft. high above chapel in center; first and second floors to contain 57 private vaults, each with from 5 to 20 crypts; also vault and crypt space in basement, providing total space for about 1000 persons.

Mo., St. Louis.—Dock.—Board of Public Service plans enlargement of temporary municipal dock at O'Fallon St.; is having plans prepared for widening present platform, 22 ft. wide and 272 ft. long, to 41 ft. wide and 291 ft. long; cost \$8000.

Tex., Corpus Christi.—Bluff Improvement, etc.—City will vote July 8 on \$150,000 bonds to complete bluff improvements and continue street paving. Address Mayor Miller. (Noted in Feb.)

### MISCELLANEOUS ENTERPRISES

Ala., Birmingham.—Construction.—Warrior Construction Co., capital \$2000, inctpd.; W. R. Gibbs, Prest.; John Austin, V. P.; W. P. Kaley, Secy.-Treas.

Ark., Little Rock.—Printing.—O. D. Tucker, 3rd, has plans by John P. Almand for remodeling stable; portion of lower floor and upper floor to be occupied by H. G. Pugh Printing Co., for printing plant. (See Motors and Garages.)

Fla., Jacksonville.—Builders' Supplies.—Florida Builders' Supply Co., capital \$30,000, inctpd.; T. W. Mitchell, Prest.; L. S. Gaulden, V. P.; D. Kimball, Secy.-Treas.

Ga., Athens.—Contracting.—Hinton-Stewart Contracting Co., capital \$5000, inctpd. by H. H. Hinton and H. L. Stewart.

La., New Orleans.—Steamship Line.—Mexican Fruit & Steamship Co., capital \$75,000, organized; John Beninato, V. P. and Gen. Mgr., Whitney-Central Bank Bldg.

Md., Baltimore.—Grain Elevator.—Pennsylvania R. R. Co., A. C. Shand, Ch. Engr., Broad Street Station, Philadelphia, will rebuild No. 3 grain elevator burned at loss of \$400,000.

Md., St. Helena.—Contractors' Plant.—Sanford & Brooks Co., Commerce and Water Sts., Baltimore, purchased 30 acres with 1100-ft. water-front; will utilize to build plant for general contracting; construct shops and yards; build bulkheads and piers into

Patapsco River and probably double land area; may extend water-front 1600 ft.; has not determined details.

N. C., Durham.—Printing.—J. T. Christian Press, N. Corcoran St., is erecting \$7000 2-story 40x75-ft. building noted in May; has purchased equipment for general commercial printing. (See Machinery Wanted—Heating Plant; Electric Motors.)

N. C., Durham.—Grain Elevator.—Austin-Heaton Co., A. H. Carr, Prest., will erect 5-story, 84x38-ft. 72-ft. high, building, which will increase elevator capacity 50,000 bu. (See Flour, Feed and Meal Mills.)

N. C., Rocky Mount.—Laundry.—Bishop Laundry, capital \$10,000, inctpd. by R. H. Ricks, T. L. Stroud and others.

N. C., Spencer.—Hardware.—Spencer Hardware Co., capital \$15,000, inctpd. by T. C. Godfrey, M. L. Jacobbs and C. M. Henry.

Okla., Afton.—Grain Elevator.—Lipscomb Grain Co., C. Lipscomb, Prest., Liberal, Mo., will build grain elevator.

Okla., Pocasset.—Grain Elevator.—Pocasset Grain & Elevator Co., capital \$5000, inctpd. by R. W. Davidson and E. Davidson of Pocasset and F. E. Moore of Chickasha, Okla.

Tex., Chico.—Crushed Stone.—Chico Crushed Stone Co., capital \$25,000, inctpd. by J. W. Barnett, R. L. Morris and Arthur S. Goetz.

Tex., Georgetown.—Publishing.—Sun Publishing Co., capital \$8000, inctpd. by John R. Allen, Geo. Kenney and W. Lowrey Foster.

Tex., Iredell.—Grain Elevator.—Iredell Elevator Co. organized; will build grain elevator.

Tex., San Antonio.—Lithographing.—Lafayette Ward, owner, State Bank Bldg., let contract Dupuy & Ranney of San Antonio to erect building to be leased by Maverick-Clarke Lithograph Co.; structure to be of reinforced concrete, steel and glass; fireproof; steel sash; 1 story; 50,000 sq. ft. floor space; cost \$60,000; plans prepared by and construction under supervision of Whitaker & Washington, civil and contracting engineers; Ralph Cameron, Consult. Archt., San Antonio. (Lately noted.)

Va., Christianburg.—Construction.—Miller Construction Co., capital \$25,000, inctpd.; Chas. R. Colhoun, Prest.; B. M. Hagan, Secy.; Morris C. Miller, Treas.-Mgr.; road contracting and lime manufacturing.

Va., Norfolk.—Grain Elevator.—Norfolk & Western Ry., L. E. Johnson, Prest., Roanoke, Va., is reported as giving attention to plans contemplating construction of \$1,000,000 grain elevator; Mr. Johnson wires Manufacturers Record: Situation relative to elevator remains one of investigation; no decision reached. (Previously reported planned.)

Va., Petersburg.—Cleaning.—Woolard Cleaning Co., capital \$25,000, inctpd.; T. M. Woolard, Prest.; T. P. Wharton, Secy.

### MISCELLANEOUS FACTORIES

Ala., Birmingham.—Spark Plugs.—Long Distance Spark Plug Co., capital \$10,000, inctpd.; Solon Jacobs, Prest.-Treas.; H. C. Pogue, V. P. and Mgr.; S. E. Jones, Secy.; no machinery needed at present; temporary location, 6th and 20th Sts.

Ala., Birmingham.—Nitrate.—Du Pont Public Bureau, Wilmington, Del., wires Manufacturers Record: No truth in report that Du Pont Company is preparing to build nitrate plant in Alabama. This refers to statement that E. I. du Pont de Nemours & Co. will build nitrate plant in Birmingham district.

Fla., Bartow.—Stone Products.—Stone Products Co., capital \$10,000, inctpd.; John T. Burrows, Prest.; Ellis Gibson, V. P. and Secy.; E. L. Wirt, Treas.

Fla., Jacksonville.—Naval Stores.—Kissimmee Island Naval Stores Co., capital \$50,000, inctpd.; J. A. Equing, Prest.; D. N. Corbett, V. P.; J. A. Tripp, Secy.; J. H. Burroughs, Treas.

Fla., Jacksonville.—Drugs.—Florida Drug Mfg. Co., capital \$10,000, inctpd.; Walter Dopson, Prest.; R. Y. Thomas, V. P.; John A. Lynch, Secy.-Treas.

Ga., Atlanta.—Fruit Products.—Frisco Fruit Products Co., capital \$5000, inctpd. by Chas. L. Chosewood and H. G. Kenney to manufacture syrups, extracts, etc.

Ga., Junction City.—Peanut Oil.—Junction City Mfg. Co. organized to establish peanut-oil mill; C. W. Moore, Prest.; W. A. Dwyer, Treas.; W. R. Blythe, Mgr.; contemplates opening bids in fall of 1917 on building of ordinary mill construction. (Lately noted.)

Ga., Macon.—Vending Machines.—Standard Vending Machine Co., capital \$10,000, inctpd. by Judge Matthews and others.

Ky., Junction City.—Sassafras Oil.—Kraemer & Martin Essential Oil Co. organized by C. Kraemer and Moritz Martin of Louisville, Ky.; will erect plant to manufacture sassafras oil.

Ky., Lexington.—Creamery.—Centrally Creamery Co., capital \$25,000, inctpd. by O. Lee, P. D. Heltzell and Noel Whiteside.

Ky., Louisville.—Paint.—Reliable Paint Co., capital \$20,000, inctpd. by W. E. Mullin, W. L. Kennett and E. Mantle.

Ky., Middlesboro.—Overalls.—Middlesboro Overall Co. will install buttonhole and other sewing machinery; increase output one-third.

Ky., Russell.—Creamery.—Russell Creamery Co. (lately noted inctpd., capital \$40,000), Henry S. Klein, Mgr., will let contract to erect \$15,000 reinforced concrete building; has mainly contracted for machinery, cost \$18,000; will manufacture ice, ice-cream, butter and general dairy products. (See Machinery Wanted—Creamery Machinery, etc.)

La., New Orleans.—Sugar.—Central Louisiana Sugar Factory, capital \$100,000, inctpd.; W. A. Holloway, Prest., Plaquemine, La.; Chas. A. Smith, V. P., Valverde, La.; W. B. Bloomfield, Secy.-Treas., New Orleans.

Md., St. Helena.—Pigments, etc.—Chemical Pigments Corp., \$265,000 capitalization, inctpd. by F. R. Hansell of Philadelphia Vinegar Co., 153 S. Front St., Philadelphia; Geo. H. B. Martin, Camden, N. J., and others; will build pigment and chemical manufacturing plant; purchased 6-acre site on Middle River; Frank S. Havens, Chem. Engr., Philadelphia; Mr. Hansell wires Manufacturers Record: Can give no information at present.

Mo., St. Louis.—Cones.—Original Cone Co., capital \$2500, inctpd. by Jos. Middenhoff, Gabriel L. Sakakeeny and Bernard Middenhoff.

N. C., Charlotte.—Creamery.—C. O. Brown let contract R. L. Goode to erect building for Charlotte Milk & Creamery Co., reorganization of P. C. Dairy Co.; structure will be 2 stories and basement; 40x30 ft.; brick; white enamel and plate glass front; interior finished throughout with white enamel. (Contract lately reported let to C. O. Brown.)

N. C., Durham.—Bakery.—R. H. Wright will build bakery; contain 3000 sq. ft. floor space.

Okla., Granite.—Controller.—White Cotton Press Controller Co., capital \$2000, inctpd. by J. T. Alexander, Wm. White and A. H. Downing.

Okla., Oklahoma City.—Saddles.—Shield Carrying Saddle Co., capital \$5000, inctpd. by O. G. Hancock, H. S. Baker and H. C. Schilling.

S. C., Columbia.—A. & S. Candy Co., capital \$2000, inctpd. by E. L. Allison and A. W. Sims.

S. C., North Augusta.—Illuminating Ingredient.—Jackson & Cranston, capital \$10,000, inctpd. by Jas. U. Jackson and John M. Cranston.

Tenn., Knoxville.—Cigars.—Newman-Hibberd Cigar Co., capital \$15,000, inctpd. by Roy M. Newman, A. B. Hibberd, J. B. Barnett and others.

Tenn., Memphis.—Glass Caskets.—De Camp Glass Casket Co., authorized capital \$1,000,000, organized; plans to build factory for glass burial caskets; J. B. Witherington, Prest.; E. H. Wootten, V. P.; John D. McClanahan, Secy.-Treas.; office, 534 Bank of Commerce and Trust Bldg.; advises Manufacturers Record that construction details are not ready for announcement.

Tex., Dallas.—Thermowax.—Thermowax Co., capital \$25,000, inctpd. by A. T. Powell, Alfred N. Annan and Martin A. Seward.

Tex., San Antonio.—Steam Boiler Cleaner.—American Steam Boiler Cleaner Co., capital \$4000, inctpd. by B. F. Surface, L. A. Riser and Chas. E. Smith.

Tex., San Antonio.—Crackers and Candy.—Brown Cracker & Candy Co. is having plans prepared by Reuter & Harrington, of San Antonio, for factory to cost \$70,000; initial building to be warehouse; 68x148 ft.; brick; carrying capacity of 400 lbs. to sq. ft. floor space; cost \$10,000; let contract Chas. M. Schoenfeldt; site 150x160 ft. remaining for factory proper.

Va., Abingdon.—Creamery.—Abingdon Creamery & Ice Co., capital \$50,000, inctpd.; A. W. Buhrman, Prest.; E. W. Potts, Secy.

Va., Hopewell.—Beverages.—Hopewell Beverage Corp., capital \$50,000, chartered; C. F. Camp, Prest.; A. E. Mechl, Secy.

### MOTORS AND GARAGES

Ark., Little Rock.—Garage, etc.—O. D. Tucker III has plans by John P. Almand for



remodeling Kraft stable on 3d St. to be occupied by O. D. Tucker IV & Co. as garage and repair shop and H. G. Pugh Printing Co. for printing plant; building, 75x150 ft., to be fireproof, with cement floors, cement roof, concrete columns and plate-glass front; entire interior to be remodeled; cost \$10,000; O. D. Tucker & Co. will occupy 50 ft. front on ground floor and will operate vycanizing and repair department and garage; H. G. Pugh Company will occupy 25 ft. on ground floor and entire second floor, latter to contain composing-room, pressroom and bindery.

Ga., Valdosta—Garage.—Southwell Garage Co., capital \$3000, inctpd. by W. G. Southwell and others.

Ky., Paducah—Garage.—Paducah Auto & Mfg. Co., 117 Broadway, organized with H. J. Jennings, Pres.; R. M. Jennings, V.-P.; W. T. Mangum, Secy.-Treas. and Mgr.; open bids about July 1 to erect brick building; cost \$1000; install milling machine, lathe and other equipment.

Miss., Meridian—Garage.—Bostick Lumber & Mfg. Co. will erect \$7000 garage.

N. C., Lexington—Automobiles.—Lexington Motor Co., capital \$25,000, inctpd. by John A. Young, J. D. Redwine and J. H. Greer.

Okla., Oklahoma City—Automobiles.—Gorman-Head Auto Co., capital \$5000, inctpd. by Charles Gorman, Carrie B. Gorman and G. M. Head.

S. C., Charleston—Automobiles.—Carolina Sales Co., Wm. Burgeson, Mgr., 147 Meeting St., let contract to Robt. McCarroll to erect 45x160-ft. fireproof building; plans by Benson & Barbot, Charleston; sales of Overland automobiles. (Lately noted inctpd., capital \$10,000, by W. A. O'Hagan and Jas. S. Farnum.)

Tex., Victoria—Garage.—Mrs. Theo. Buhler, Jas. F. Welder and John J. Welder will erect garage for Fred Evertson; structure of cement and tile; 50x90 ft.; fireproof; plans by Jules Leffland & Son, of Victoria.

Va., Fredericksburg—Garage.—Stephen C. Pratt will build garage.

Va., Norfolk—Automobile Supplies.—Norfolk Motorist Supply Co., capital \$15,000, inctpd.; L. Lewis Smith, Pres.; G. Mason Smith, V.-P. and Secy.

Va., Portsmouth—Automobiles.—Waterman Automobile Co., capital \$15,000, inctpd.; J. K. Wells, Pres., Norfolk; J. W. Driver, V.-P., Newport News; J. W. Waterman, Secy.-Treas., Norfolk.

Va., Richmond—Garage.—Kate Wittkamp will erect 1-story brick garage; cost \$4000.

Va., Richmond—Garage.—J. I. Kaufman and Maurice Block will remodel brick store as garage; cost \$8000.

## RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ark., Argenta.—St. Louis, Iron Mountain & Southern Railway, E. A. Hadley, Chief Engr., St. Louis, Mo., will rebuild blacksmith shop of bridge and building department reported burned at total loss of \$5000.

Ark., Texarkana.—St. Louis, Iron Mountain & Southern Railway, E. A. Hadley, Chief Engr., St. Louis, Mo., let contract to John Vogel, 2110 Bellevue Ave., St. Louis, to erect 8-stall frame engine house. (Noted in April.)

Okla., Wagoner.—Missouri, Kansas & Texas Ry., L. F. Lonnbladh, Ch. Engr., Dallas, Tex., will install mechanical interlocking plant with electric distant signals.

W. Va., Hadley.—Chesapeake & Ohio Ry., F. I. Cabell, Ch. Engr., Richmond, Va., let contract Major Bros. & Carpenter of Clifton Forge, Va., to enlarge roundhouse.

## ROAD AND STREET WORK

Ala., Bay Minette.—Baldwin County, J. H. H. Smith, Probate Judge, let following contracts to grade and improve 27 mi. roads; 6 sections; sections 1 and 2 let to L. C. Rawlinson; section 3 to J. G. Brown; section 4 to J. F. Gridders; sections 5 and 6 to Jordan & Phillips; J. M. Garrett, County Engr.; cost of these roads, \$110,000; entire amount of \$200,000 available for these contracts and additional work. (Noted in May.)

Ala., Dadeville.—Tallapoosa County will construct 12 mi. road from Zana to Chambers County line, via Daviston; 20 mi. from Alexander City to Elmore County line, via Outtown; 70 mi. from Camp Hill to Lee County line; 5 mi. from Camp Hill to Chambers County line; 16 mi. from Outtown to Dadeville, via Young's Ferry; also construct steel bridges in connection; County Comms. receive bids until July 10; G. J. Sorrell, Judge of Probate. (See Machinery Wanted—Road Construction.)

Ala., Tusculumbia.—Colbert County will grade, drain and surface with gravel 3 mi. of Tusculumbia and Russellville Rds., from top of mountain to county line; bids until July 12; W. S. Keller, State Highway Engr., Montgomery, Ala. (See Machinery Wanted—Road Construction.)

Ark., Little Rock.—City will pave West 15th St. from Pulaski to High St.; Street Improvement Dist. No. 252, J. G. Thornton, Secy., receives bids until June 16. (See Machinery Wanted—Paving.)

Ark., Stuttgart.—City let contract H. R. Mobley, Argenta, Ark., at \$30,000 to pave streets in Dist. No. 2.

Ark., Stuttgart.—Street Improvement Dist. No. 4, Sid Brain, Secy., will construct 27,800 lin. ft. concave gutter, 4570 lin. ft. combined curb and gutter and 35,629 sq. yds. pavement; bids until June 21; concrete, bituminous or macadam pavement, rock or gravel; Towl Engineering Co., Engr., Stuttgart; noted in May to issue \$26,000 bonds. (See Machinery Wanted—Paving.)

Fla., Arcadia.—DeSoto County Special Road and Bridge Dist. No. 5 will construct 561,749 sq. yds. sand asphalt, brick, rocmac, bituminous macadam, bitosand or other pavement; bids until July 3; A. L. Durance, Clerk, County Comms.; Phil Lacey, Engr., Zolfo, Fla.; noted in April. (See Machinery Wanted—Paving.)

Fla., Clearwater.—Pinellas County Commissioners, Clearwater, let contract J. B. McCrary Co., Atlanta, Ga., at \$26,700 to pave with brick 9th St. South from Ingleside to Lakeview Ave., and Lakeview Ave. from 9th to 4th St., St. Petersburg; paving to be 36 ft. wide on 9th St. from Ingleside to Tangerine Ave., and 9 ft. of brick with 3-ft. rock shoulders from Tangerine to Lakeview Ave.; on Lakeview Ave., 9 ft. of brick with 3-ft. rock shoulders.

Fla., Fort Myers.—Lee County will hard surface road from Fort Myers to Horse Creek, 9½ mi. from Naples, with water bound macadam (crushed from native rock) or with marl mixture; bids until June 21; P. F. Jenkins, Engr., Fort Myers; H. A. Hendry, Clerk, County Comms. (See Machinery Wanted—Road Construction.)

Fla., Palatka.—Putnam County Comms., Dist. No. 2, C. E. Rowton, Chmn., let contract to Georgia Engineering Co., Augusta, Ga., to construct brick roads; \$208,000 available. (Bids noted in May.)

Ga., Folkston.—Charlton County contemplates voting on bonds to construct 18 mi. of road. Address County Comms.

Ky., Bowling Green.—Warren County Comms. will have highway work to amount of \$30,000 ready for construction within 30 days; bids amounting to \$12,000 or \$15,000 received until June 15; M. H. Crump, County Road Engr. (See Machinery Wanted—Road Construction.)

Ky., Newport.—City let contract Edw. J. Kuepfle, Bellevue, Ky., at \$18,726.36 to construct brick pavement.

Ky., Owenton.—Owen County, T. O. Prather, County Judge, will reconstruct 32 mi. macadamized roads; open bids June 16; \$30,000 available; C. E. Faulkner, Engr. (See Machinery Wanted—Road Construction.)

Ky., Wickliffe.—Ballard County will construct 54.88 mi. gravel roads involving following quantities: Earth excavation, 98,724.8 cu. yds.; gravel for surfacing, 131,147.9 cu. yds.; reinforced concrete, 2,914.2 cu. yds.; hauling and placing 12-in. corrugated pipe, 506 lin. ft.; hauling and placing 18-in. corrugated pipe, 1158 lin. ft.; hauling and placing 24-in. corrugated pipe, 16 lin. ft.; shaping and rolling subgrade, 54.88 mi.; bids until June 16; G. O. Johnson, Clerk, Fiscal Court. (See Machinery Wanted—Road Construction.)

Ky., Georgetown.—Scott County Comms. invite bids to reconstruct inter-county seat roads, about 56 mi.; \$100,000 bonds authorized. (Noted in April.)

Ky., Pineville.—Bell county will improve road between forks of Straight Creek and Cary; Fiscal Court, W. C. Bingham, County Clk., receives bids until June 24. (See Machinery Wanted—Road Construction.)

Ky., Princeton.—Caldwell County Comms. will construct 2½ mi. Eddyville Pike; estimated cost \$12,000.

La., Abbeville.—Vermilion Parish, Third Ward Road Dist., will grade roads and construct concrete bridges. Address Police Jury.

La., New Orleans.—City let contract Hampton Reynolds, Maison Blanche, New Orleans, at \$23,871 to reconstruct portion of Girod St. wharf floor with wood block paving.

Md., Baltimore.—Maryland State Roads Com., F. H. Zouck, Chmn., 601 Garrett Bldg.,

asks bids until June 27 to build 5 sections State highway, about 21.40 mi., in Anne Arundel, Baltimore, Frederick, Talbot and Worcester counties; 7.07 mi. macadam resurfacing, 8.33 mi. concrete and 6 mi. gravel or concrete roadway. (See Machinery Wanted—Road Construction.)

Md., Baltimore.—Maryland State Roads Com., F. H. Zouck, Chmn., 601 Garrett Bldg., asks bids until July 5 to build 8 sections, 28.83 mi. State Highway in Allegany, Baltimore, Caroline, Charles, Dorchester, Howard, Frederick and Somerset counties; 11.5 mi. macadam, 7.27 mi. concrete, 5.66 mi. gravel and 4.4 mi. concrete or gravel roadway; also 3 bridges. (See Machinery Wanted—Road Construction.)

Md., Bay Shore Park.—Bay Shore Park Development Co. (Harry B. Wolf, 204 Courtland St., Baltimore) plans construction 10 mi. roads and streets; J. Spence Howard, Engr., 11 E. Lexington St., Baltimore. (See Land Developments.)

Md., Denton.—City let contract Holt Construction Co., Denton, at \$18,181.51 to construct 13,000 sq. yds. paving with curb and gutter.

Md., Easton.—Talbot County will construct section of State-aid highway on Peachblossom Rd. from Fair Grounds gate to Peachblossom bridge, 2 mi.; bids until June 27; Jos. B. Harrington, Clerk and Treas.; Frank W. Seth, County Roads Engr. (See Machinery Wanted—Road Construction.)

Md., Towson.—Baltimore County Comms. let contract Fisher & Carozza, 437 E. Preston St., Baltimore, Md., at \$55,000 to improve Reisterstown Rd., from Pikesville to Reisterstown; later will improve road from Baltimore to Pikesville. (Lately invited bids.)

Miss., Canton.—City, W. L. Dinkins, Mayor, will construct lately noted pavement; about 5000 sq. yds. brick, concrete, wood blocks or asphalt; 4 mi. gravel macadam; 2½ mi. concrete curb and gutter; 2600 ft. 12 to 36 in. diam. storm-sewer pipe; bids until June 22, (postponed date); Walter G. Kirkpatrick, Engr., 704 Farley Bldg., Birmingham, Ala. (See Machinery Wanted—Paving.)

Miss., Cleveland.—City will construct 10,000 lin. ft. gravel pavement; bids until June 20; W. W. Boone, City Engr. (See Machinery Wanted—Paving.)

Miss., Cleveland.—City, L. M. Guynes, City Clerk, asks bids until June 20 to construct 10,000 lin. ft. gravel pavement; cost about \$14,000; W. W. Boone, City Engr. (See Machinery Wanted—Paving.)

Miss., Flora.—City adopted plans and specifications by Xavier A. Kramer, Engr., Magnolia, Miss., for sidewalk improvements and electric-light system; engineer will invite bids.

Miss., Greenville.—Washington County Comms., W. W. Miller, Clk., will construct 144 mi. concrete roads; engineer not yet selected. (\$550,000 bonds lately noted voted.)

Miss., Greenwood.—City let contract Memphis Asphaltic Paving Co., Memphis, Tenn., at \$1,517, to pave Washington St. from Howard to Mary St.; width, 30 ft.; asphaltic concrete.

Miss., Lexington.—Holmes County Comms. will construct 27 mi. macadam road; bids July 3; Snowden & Hauser, Engrs., Jackson and Columbus, Miss. (See Machinery Wanted—Road Construction.)

Miss., Macon.—Noxubee County, Dist. 5, let contract to Owens Construction Co., Brooks-ville, Miss., at \$20,000, for road construction; Gus E. Hauser, Columbus, Miss., Engr.; W. B. Bell and others, Brooksville, Comms. (Bids lately noted.)

Miss., Pontotoc.—Pontotoc County Highway Comms., 2nd Dist., C. C. Robbins, chmn., Comms., will construct 25 mi. roads; bids until June 23; Jos. P. Carey, Engr., Pontotoc. (See Machinery Wanted—Road Construction.)

Miss., Starkville.—Oktibbeha County Commissioners ordered vote June 27 on bond issue to construct rock roads from A. & M. College to Lowndes County line, 8 mi., and to Clay County line, 7 mi.

Miss., Winona.—Montgomery County Supvrs. ordered election in Beat 2 on Aug. 5 to vote on bonds to construct roads.

Miss., Winona.—Montgomery County will construct 13 mi. macadam or gravel highway to be section of Jefferson Davis Highway; Highway Com. of Dist. No. 1 (Henry Hart and others) receives bids until July 5; Snowden & Hauser, Civil and Const. Engrs., Jackson and Columbus, Miss. (See Machinery Wanted—Road Construction.)

Miss., Yazoo City.—Yazoo County Supvrs. ordered election June 30 on bonds to construct roads. S. C. Griffin, Clk.

Miss., Yazoo City.—Yazoo County Supvrs., S. C. Griffin, Clk., will (upon completion of plans and specifications by engineers) ask bids for road construction in Beats 1, 3 and 5; will issue \$133,000 bonds in Dist. 1, \$350,000 in Dist. 3 and \$100,000 in Dist. 5.

Mo., Illinois.—City will pave with concrete sections of 2d, Hickory, Maple and 5th Sts.; total 6300 cu. yds. excavation, 5000 lin. ft. combination curb and gutter, 4989 sq. yds. plain concrete, 3700 sq. yds. reinforced concrete; bids opened June 12; E. L. Parcell, City Clk.; M. S. Murray, City Engr.

Mo., Fulton.—City will construct 2000 sq. yds. bituminous macadam and 1450 lin. ft. concrete curb; bids until July 6; F. E. Baker, City Engr. (See Machinery Wanted—Paving.)

Mo., Greenfield.—Dade County, Lockwood Township, defeated \$25,000 bonds to construct road. (Lately noted.)

Mo., Greenfield.—Dade county, Red Oak Dist., voted \$25,000 bonds to construct roads. Address County Comms.

Mo., Independence.—Jackson County Commissioners approved plans and specifications for grading and macadamizing Kentucky Ave. from Fairmount Ave. to Independence Rd., 2 mi.; will invite bids.

Mo., Independence.—Jackson County Commissioners let contract Davidson Construction Co., Kansas City, Mo., at \$24,242.90 to construct Swope Park and Hickman Mills Rd., and at \$36,550.75 to grade and macadamize 4 mi. Duck Rd.

Mo., Kansas City.—City let contract A. Jaicks & Co., of Kansas City, to pave Main St., from 13th to 18th St., with wood blocks.

Mo., Kennett.—City let contract Carman Bros., at \$11,000 to pave one-half mi. of Washington Ave., with concrete; includes curbing and guttering.

Mo., Mount Vernon.—Lawrence county, Verona Special Road Dist., defeated \$35,000 bonds to improve roads. (Reported in Apr. to vote.)

Mo., Sikeston.—City let contract Murray & Williams, of Sikeston and Wyatt, Mo., at \$13,823.22 to grade, curb, gutter and pave with asphalt macadam New Madrid St. and King's Highway from North St. to College Ave.; 3200 cu. yds. excavation, 5186 lin. ft. curb and gutter and 8029 sq. yds. asphalt macadam paving on concrete base; Benj. L. Parker, City Engr. (Call for bids noted in May.)

N. C., Greenville.—Pitt County, Winterville Township will vote on \$50,000 bonds to construct roads. Address County Comms.

N. C., Greenville.—Pitt County, Ayden Township, will vote on \$50,000 bonds to construct roads. Address County Comms.

N. C., Greenville.—City, Albion Dunn, Mayor, asks bids until July 6 for street improvements; 30,000 sq. yds. brick, asphalt, bitulth or other pavement; 25,000 lin. ft. granite curb; 20,000 lin. ft. concrete gutter; 1000 sq. yds. sidewalk, with drainage, etc.; Gilbert C. White, Engr., Durham, N. C. (See Machinery Wanted—Paving.)

N. C., Henderson.—City, G. W. Adams, City Clerk, will construct 35,000 ft. concrete curb and gutter, with storm drainage; open bids June 29; Anderson & Christie, Const. Engrs., Charlotte, N. C., and Wilson, N. C., the latter office for this work. (See Machinery Wanted—Paving.)

N. C., Kinston.—Lenoir County Comms. let contract R. G. Hill & Co. of Birmingham, Ala., to construct 32 mi. sand-clay roads; \$30,000 available. (Call for bids lately noted.)

N. C., Morganton.—Town will construct 900 yds. of concrete paving on West Union St.; C. T. Cain, Town Mgr., receives bids until June 30. (See Machinery Wanted—Paving.)

N. C., New Bern.—Craven County will construct sections of Trent and Vanceboro Roads; cement gravel; bids until July 3; H. M. Goves, County Auditor. (See Machinery Wanted—Road Construction.)

N. C., Reidsville.—City, J. E. Amos, Chmn. Street Committee, will grade and pave with sheet asphalt about 20,000 sq. yds. of Main St.; bids until June 21; J. N. Ambler, Const. Engr.; lately noted. (See Machinery Wanted—Paving.)

N. C., Shelby.—City let contract Ely Construction Co., Chattanooga, Tenn., at total of \$43,946.50 for street improvements, including 26,232 sq. yds. pavement, 497 lin. ft. curb, 904 ft. concrete header, 140 ft. 12-in. and 480 ft. 12-in. terra-cotta drains, etc.; J. B. McCrary Co., Engr., Atlanta, Ga. (Call for bids noted in May.)

N. C., Tarboro.—Edgecombe County Comms., H. S. Bunn, Clerk, will construct

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

10 mi. sand clay roads; receive bids July 3. (See Machinery Wanted—Road Construction.)

N. C., Warrenton.—Warren County, River Township, voted bonds for road construction; P. M. Stallings, Chrmn. County Commissioners. (Noted in May to vote on \$30,000 bonds June 3.)

N. C., Washington.—Beaufort county, Washington township, will construct 80 mi. of road under supervision of W. L. Snowden, Engr.; voted \$50,000 bonds.

Okl., Bartlesville.—City, C. A. Lamm, Mayor, is constructing part of lately noted 1 mi. concrete paving; contr. Bert Hahn Construction Co., Republic Bank Bldg., Kansas City, Mo.; Engr., E. D. Kirkpatrick, Boothville, Okla.

Okl., Durant.—City let contract Southwestern Gravel Co., of Ardmore, Okla., at \$27,931.60 to grade and pave Main St. with rock asphalt. (Supersedes recent item.)

Okl., Holdenville.—Hughes County, Calvin Township, will vote on \$34,000 bonds to construct roads. Address County Commrs.

Okl., Oklahoma City.—City Commrs. let contract National Paving Co. and Western Paving Co., respectively, to lay 2 blocks of pavement on 33rd St., from Classen Blvd. to Blackwelder Ave., and 1 block on 19th St., from Walker to Dewey Aves.

Okl., Sapulpa.—Creek County, Mounds Township, will construct 20 mi. of macadam roads and concrete culverts; \$100,000 bonds authorized; build road from Mounds to Sapulpa estimated to cost \$90,000; estimated to require 60,000 cu. yds. excavation and embankment and 33,000 cu. yds. limestone in place.

Tenn., Goltewah.—James County Commrs. ordered vote Aug. 8 on \$25,000 bonds to construct roads.

Tenn., Lawrenceburg.—Lawrence County Commrs. probably open bids in about 30 days (upon completion of survey) to construct roads and bridges; W. H. Rhodes, Engr. (Lately noted issuing \$350,000 bonds for construction of county's portion of Jackson Highway.)

Tenn., Rogersville.—Hawkins County will improve 90 mi. road; work consists of grading, macadamizing, bridge and concrete work and hauling, and laying pipe lines; Road Commrs., H. B. Stamps, Chrmn., receive bids until July 6; S. C. Cornwell, Ch. Engr., Rogersville; lately noted to expend \$450,000 for road improvements. (See Machinery Wanted—Road Construction.)

Tenn., Savannah.—Hardin County voted \$100,000 bonds to construct 100 mi. graveled roads; A. A. Watson, County Judge. (Noted in April.)

Tex., Alpine.—City will construct 2 mi. cement sidewalks; has let contract. Address The Mayor.

Tex., Bonham.—Fannin county, Road Dist. No. 10, Will Harkins, County Auditor, Bonham, will expend \$35,000 on road construction; Geo. A. McClellan, Engr., Bonham.

Tex., Cold Springs.—San Jacinto County, Road Dist. No. 2, Wm. McMurrey, County Judge, let contract to N. A. Dawson, Shepherd, Tex., to construct 8 mi. gravel and 27 mi. sand-clay road; \$40,000 available; L. A. Bryant, Engr., Shepherd. (Bids noted in May.)

Tex., Cold Spring.—San Jacinto county, Road Dist. No. 1, will construct 18 mi. sand-clay roads; bids opened June 12; Wm. McMurrey, County Judge.

Tex., Corpus Christi.—City will vote July 8 on \$150,000 bonds to continue street paving and complete bluff improvements. Address Mayor Miller. (Noted in Feb.)

Tex., Corsicana.—City's lately-noted paving contract to pave 20th and some other streets was let to Southern Paving Co. of Dallas, Tex. (Incorrectly noted awarded to Southern Paving Construction Co., Chattanooga, Tenn.)

Tex., Eastland.—Eastland county, Cisco Dist., defeated \$60,000 bonds to construct roads. (Noted in May to vote.)

Tex., Galveston.—City will construct 1255 sq. yds. concrete paving and 1680 lin. ft., 6x16-in. concrete coping; bids until June 15; A. T. Dickey, City Engr. (See Machinery—Paving, etc.)

Tex., Gilmer.—Upshur county voted \$100,000 bonds to construct Jefferson Highway across county. Address County Commrs. (Noted in May to vote.)

Tex., Huntsville.—City, T. E. Humphrey, Mayor, voted \$7500 bonds for street paving.

Tex., San Augustine.—City let contract T. S. Moore of Lufkin to grade streets.

Tex., Seguin.—Guadalupe County defeated \$75,000 bonds to construct roads. (Noted in April.)

Tex., Sinton.—San Patricio county, Precinct No. 1, votes July 8 on \$100,000 bonds to improve roads. Address County Commrs.

Va., Bedford.—City will pave Bedford Ave. with brick; Norfolk & Western Ry. to contribute \$2800; \$700 secured by subscription. Address The Mayor.

Va., Danville.—City defeated bonds to improve streets; R. Brydon, Clerk. (Noted in March.)

Va., Eastville.—Capeville Road Com., A. Oreston Scott Secy-Treas., Cape Charles, Va., will construct 25 mi. sand-clay road in Capeville Dist.; bids until June 15; G. P. Coleman, State Highway Commr., Richmond, Va. (See Machinery Wanted—Road Construction.)

Va., Norfolk.—City let contract Lawson Construction Co., Norfolk, to improve Shirley and Spottswood Aves. with combined concrete curb and gutter and sheet asphalt paving; 3550 lin. ft. curb and gutter, and 4700 sq. ft. paving.

Va., Petersburg.—City let contract C. E. Garrison of Augusta, Ga., to construct 15,000 ft. concrete curb and gutter and 10,000 sq. yds. concrete walks; J. R. Jones, Chrmn. Street Committee. (Call for bids noted in May.)

Va., Port Norfolk.—Com. of Roads and Bridges, R. B. Preston, Road Engr., 401 Commercial Bldg., Norfolk, let contract J. U. Addenbrook's Son, Inc., to construct 8000 sq. yds. granolithic sidewalks in Port Norfolk. (Call for bids lately noted.)

Va., Richmond.—City let contract A. Q. Billings, at \$4926.75 to lay sidewalks on both sides Robinson St., from Broad to Cary St.; J. E. Anderson & Bro., at total of \$3432.44 for granolithic curbing and guttering on sections of Deep Run, Sheppard and West Sts.; Javi Perkins, at \$691.09 for granolithic curbing and guttering on N St.

Va., Staunton.—City let contract Wm. Larner & Co. at \$2550 to pave 1 block of North Central Ave. from Frederick to Baldwin St.

Va., Warrenton.—Warrenton & Fairfax Turnpike Co., J. Donald Richards, Secy., Warrenton, will construct 22 mi. highway connecting Warrenton with Fairfax; C. D. S. Clarkson, Engr.; no contracts. (See Machinery Wanted—Traction Engines, etc.)

W. Va., Ripley.—Jackson County, Fifth Dist., votes Aug. 15 on \$8000 bonds to construct roads. Address County Commrs.

## SEWER CONSTRUCTION

Fla., Miami.—City will expend about \$25,000 on sewer construction, 8 to 18-in. vitrified pipe, for which bids will probably be opened August 3; B. H. Klyce, Engr. (Other sewer construction lately noted.)

Fla., Tampa.—City will construct sanitary sewers on North Blvd. and alleys east of Blvd. and north of Cypress St.; 3200 lin. ft. 8-in. terra-cotta pipe, 2300 lin. ft. 6-in. terra-cotta pipe, 132 lin. ft. 8-in. cast-iron pipe; 140 Y's and 20 manholes; Board of Public Works, D. B. McKay, Chrmn., receives bids until June 20. (See Machinery Wanted—Sewer Construction.)

Ga., Macon.—City was lately incorrectly noted as voting June 16 on bonds for sewer construction.

Ga., Swainsboro.—City contemplates voting on bonds to construct sewer system and water-works. Address The Mayor.

Ky., Lexington.—City will construct outfall sewers; about 7000 cu. yds. earth and rock excavation, over 1100 ft. vitrified pipe sewer, about 5000 ft. concrete sewers, etc.; bids until June 20; Jas. C. Rogers, Mayor. (See Machinery Wanted—Sewer Construction.)

Md., Chesapeake Beach.—Chesapeake Beach Ry. Co. will construct sewers and sewage-disposal plant; J. Spence Howard, Engr., 11 E. Lexington St., Baltimore.

N. C., Charlotte.—City contemplates expending \$40,000 to construct trunk line sewer and septic tank on Little Sugar Creek. Address The Mayor.

Tenn., Riverview.—Edward Findlay, Chattanooga, Tenn., and others have plans by Smallwood Co., Chattanooga, for sewer system; cost \$3000; Mr. Findlay is receiving bids.

Tex., Canadian.—City will construct sanitary sewer system; bids until June 30; Oswald Hudson, Mayor; Henry E. Elrod, Conslt. Engr., 907 Southwestern Life Bldg., Dallas, Tex.; noted in May to have issued \$25,000 warrants for sewer construction. (See Machinery Wanted—Sewer Construction.)

Tex., Clarksville.—City will make certain alterations in and additions to sewage disposal plant; bids until June 23; Henry E.

Elrod, Conslt. Engr., Dallas, Tex.; C. E. Terry, Mayor. (See Machinery Wanted—Sewage Disposal Plant.)

Tex., Gainesville.—Gainesville New Odorless Sewerage Co., J. M. Lindsay, Prest., and W. J. Scott, Secy-Treas., is having plans and specifications prepared by N. Werenskiold, Dallas, Tex., for disposal plant to cost about \$25,000; the company is now extending sewer line several thousand feet. (Lately noted as Gainesville Sewer Co.)

Tex., Houston.—City will construct sewage-disposal and pumping plants; cost, \$400,000; bids until June 23; E. E. Sands, City Engr. (See Machinery Wanted—Sewer Construction.)

Tex., Huntsville.—City, T. E. Humphrey, Mayor, voted \$22,500 bonds for sewer construction.

Tex., Kenedy.—City voted \$6000 bonds to construct sewers; M. Griffin O'Neil & Son, Engrs., Dallas, Tex.; R. E. Goode, City Clk. (Noted in April.)

Tex., Lancaster.—City will construct sanitary sewer system; 3100 ft. 8-in. and 15,500 ft. 6-in. sewers; also treatment plant of 5000 gals. daily capacity and consisting of Imhoff tank, filters and sludge bed; H. E. Rawlings, City Secy., receives bids until June 16; N. Werenskiold, Engr., Dallas, Tex.; noted in April as having plans prepared by N. Werenskiold, of Dallas. (See Machinery Wanted—Sewer Construction.)

Tex., Longview.—City is having plans prepared for sewage-disposal plant; H. M. Roberts, City Engr.

Tex., Port Arthur.—Board of Trade contemplates improving sewer system; engineer's estimate of cost, \$100,000.

Tex., Quanah.—City, R. V. Crowder, Mayor, lately noted contemplating sewer plant construction, plans expenditure of \$25,000 to \$30,000; vitrified sewer pipe 12 to 4 in.; \$4000 disposal plant.

Tex., Seguin.—City defeated \$35,000 bonds to construct sewer system. (Noted in Apr.)

Va., Newport News.—Boulevard Development Corp. let contract Clifford-Noland Co. of Newport News to construct sewer system for Indian River Park.

Va., Williamsburg.—City engaged Bolton, Clarke & Pratt, Engrs., to make survey of city preparatory to construction sewer and water systems; W. L. Jones, Prest. City Council. (City noted in May as prepared to grant franchise.)

## TEXTILE MILLS

Ala., Talladega.—Cotton Cloth.—Highland City Mills will install electric drive; W. L. Dumas, Prest., writes to Manufacturers Record: Have made contract with Alabama Power Co. to electrify; have not decided upon exact specifications of equipment; will install as soon as can get bids and shipments of machinery. (Lately noted.)

N. C., Concord.—Cotton Yarn.—Norcott Cotton Mills will double spinning equipment by 6000 spindles.

N. C., Leaksville.—Knit Goods.—Thread Mills Co., Spray, N. C., and Monticello, Ind., proposes to build knitting mill; advises Manufacturers Record: Have not completed plans.

N. C., Scotland Neck.—Hosiery.—Crescent Hosiery Co. let contract to Peyton Keel and T. W. Russell to build mill; 110x63 ft., with 25x25 ft. ell; 18,000 sq. ft. floor space for manufacturing and 7000 sq. ft. for dyeing; remove machinery from present mill to new structure; add equipment; electric drive; install water system. (In March noted to build.)

S. C., Gaffney.—Cotton Goods.—Irene Mills hold meeting June 24 to considering increase of capital from \$50,000 to \$100,000.

Tenn., Cumberland Gap.—Woolen Goods.—C. E. Goodwin & Sons, Incptd., to succeed partnership of same name; E. C. Hall, Prest., New York; C. E. Goodwin, Secy-Treas.; will install additional machinery; purchased new equipment. (Lately noted to increase capacity.)

Tex., Houston.—Hosiery.—Fred C. Chavez, care W. C. Munn Co., will establish hosiery knitting mill. (See Machinery Wanted—Knitting Machines.)

Va., Roanoke.—Silk.—A. C. Ernst, of Viscoe County, Marcus Hook, Pa., is reported to build \$1,000,000 mill for manufacturing silk; 4 unit plant; each unit 1000 ft. long by 5 stories high; 10-acre site.

## WATER-WORKS

Ala., Bessie.—Sloss-Sheffield Steel & Iron Co., Birmingham, will install water-filtration plant for domestic supply at Bessie coal mines and build fireproof house for hoisting engine at Flat Top coal mines.

Ark., Harrison.—City will construct water-works to consist of power-house, triplex power pump, oil engine or electric motor, reinforced concrete reservoir, pipe lines, hydrants, valves, etc.; resetting old machinery and renewing old pipe; Commrs. Water Improvement Dist. No. 1, W. F. Gordon, Chrmn., receives bids until June 26; W. O. Galbreath, Conslt. Engr., Harrison. (See Machinery Wanted—Water-works.)

Ark., Walnut Ridge.—City will construct water-works; will engage engineer; W. G. Johnson, Acting Recorder. (Noted in May.)

Ga., Macon.—City was lately incorrectly noted as voting June 16 on bonds for water-works improvements.

Ga., Swainsboro.—City contemplates voting on bonds to construct water-works and sewer system. Address The Mayor.

Miss., Columbus.—City received report from J. L. Ludlow, Engr., Winston-Salem, N. C., recommending construction of water mains to cost \$16,000 and additional filtering equipment.

Miss., Macon.—Noxubee County Suprvs. will remodel water-works at jail; bids until July 3; John A. Tyson, Chancery Clk. (See Machinery Wanted—Water-works.)

Miss., Sumrall.—City contemplates \$20,000 bond issue to drill flowing well and build pumping station. Address The Mayor.

Miss., Vicksburg.—City invites bids until June 20 for following: Brick state room and shop; brick coagulating tank house and a store room; raising of coagulating basins walls with concrete 2 ft.; J. A. Steele, Jr., Mgr. Water Works. (See Machinery Wanted—Water Works.)

Mo., Brookfield.—City is considering plans for construction of water-works and electric-light plant. Address The Mayor.

Mo., Desloge.—City contemplates constructing water works. Address The Mayor.

Mo., Kansas City.—City will install turbine engine costing \$108,750 in water plant. H. P. Jackson, Supt. Water Works.

Okl., Blackwell.—City let contract to M. A. Swatek & Co., Oklahoma City, to construct intake tower; plans by Benham Engineering Co., Conslt. Engr., Colcord Bldg., Oklahoma City. (Noted in Apr. to make water-works improvements.)

Okl., Clinton.—City will have enlarged plans prepared for water-works construction; will vote again July 1 on \$25,000 bonds; Benham Engineering Co., Conslt. Engr., Colcord Bldg., Oklahoma City; C. E. Conway, Mayor. (City lately noted defeating bonds for \$150,000.)

Okl., Granite.—City contemplates building reservoir; J. W. Ryder, of Mangum, Okla., made surveys and located storage basin with capacity of 7,000,000 gals. water.

Okl., McCloud.—City contemplates voting on bonds to construct water works. Address The Mayor.

Okl., McLoud.—City employed Benham Engineering Co., Colcord Bldg., Oklahoma City, to make plans and specifications for water supply; bond issue about \$15,000.

Okl., Milburn.—City votes July 16 on \$21,000 bonds to construct water works. Address The Mayor.

Okl., Texhoma.—City, John F. Allison, Clerk, will expend \$10,000 on improvements to water-works; install 25 H. P. gasoline engine; electrical improvements or extensions; drill well; extend mains; construction by city; Arthur Sayre, Engr. (Bonds lately noted voted.)

S. C., Greenville.—City was lately incorrectly noted as contemplating water-works improvements.

Tex., Corpus Christi.—City Engr. Stevens completed plans for settling basin near Calallen plant; capacity, 1,000,000 gals. divided into 3 compartments.

Tex., Galveston.—A. T. Dickey, City Engr., prepared estimates on construction of reservoir with capacity of 10,000,000 gals.; construction proposed is steel tank on concrete base; 30 ft. high, 240 ft. in diam.; cost \$66,000, including iron cover; M. E. Shay, Commr. of Water and Sewer Dept.

Tex., Houston.—City will construct water works. Address The Mayor.

Tex., Kenedy.—City voted \$26,000 bonds to construct water-works; capacity 1,250,000 gals.; M. Griffin O'Neil & Son, Engrs., Dallas, Tex.; R. E. Goode, City Clk. (Noted in April.)

Tex., Welmar.—City will extend water mains. Address The Mayor.

Va., Williamsburg.—City engaged Bolton, Clarke & Pratt, Engrs., to make survey of city preparatory to constructing water and sewer systems; W. L. Jones, Prest. City



Council. (City noted in May as prepared to grant franchise.)

W. Va., East Bank.—City voted \$7000 bonds to construct water-works. Address The Mayor. (Noted in May.)

### WOODWORKING PLANTS

Ala., Decatur.—Staves.—Holland-Blowe Stave Co. will rebuild burned drykiln.

Ark., Jonesboro.—Handles.—Jonesboro Handle Co., capital \$3000, incptd. by A. W. Scott, J. D. Scott and Walter Rogers.

Ga., Hawkinsville.—Handles.—Darlen Handle Co., of Darien, Ga., will build handle factory; William Strange, of Darien, to be in charge.

Ky., Louisville.—Cooperage.—Louisville Cooperage Co. will rebuild plant lately noted burned; erect 7 buildings; cost \$45,000; Louis Keller & Sons, General Contra. and Archts., Louisville.

N. C., Elkin.—Crossarms.—Caroline Cross-arm Co., capital \$10,000, incptd. by T. H. Settle, M. E. Settle and J. C. Kerley.

N. C., Wilson.—Box Shooks.—W. L. Russell Box Co. organized; W. L. Russell, Pres., Pittsburgh, Pa.; G. C. Goodyear, V-P., McKee's Rocks, Pa.; H. J. Hellriegel, Secy.; purchased plant of W. L. Russell Shook & Lumber Co.; daily capacity 3 carloads box shooks. (In May noted incptd. with \$60,000 capital.)

Tenn., Bristol.—Furniture.—Exum Furniture Co., capital \$50,000, incptd. by W. J. Exum, W. J. Exum, Jr., Chandler Exum and others.

Tenn., Knoxville.—Staves.—A. R. Humble Stave & Lumber Co., capital \$50,000, incptd. by A. R. and H. H. Humble, J. N. Sharp and J. J. Bryant.

Tex., Locker.—Chairs.—T. W. Dowda will establish chair factory. (See Machinery Wanted—Cane.)

Va., Druryville.—Toothpicks.—Geo. H. Leigh contemplates building toothpick factory. (See Machinery Wanted—Woodworking (Toothpick) Equipment.)

Va., Norfolk.—Portable Houses.—Horace Greely Knapp, Archt., is interested in organization of company to manufacture portable houses.

Va., Portsmouth.—Barrels.—Portsmouth Barrel Co. will erect 1-story frame building for barrel factory.

### FIRE DAMAGE

Ala., Andalusia.—Sessoma Grocery Co.'s business block, including grist mill, crushers, etc.; loss \$75,000 to \$100,000.

Ala., Attalla.—A. Brown's residence.

Ark., Argenta.—St. Louis, Iron Mountain & Southern Railway's blacksmith shop of bridge and building department; loss on building \$2500 and on machinery \$2500; E. A. Hadley, Chief Engr., St. Louis, Mo.

Ark., Jacksonville.—J. M. Joiner's residence, barn and 5 tenant-houses at Olmstead; loss \$15,000.

Ark., Paris.—Sanders Grocery Co.'s building; Barker Sively Bldg.; L. P. Jacobs' building; Elstein Hotel; building occupied by Jacobs Hardware Co., Paris Drug Co., E. Johns Merchandise Co., Geo. M. Zellner & Co.; loss \$20,000.

Ark., Sulphur Rock.—S. D. Maxwell's residence.

Fla., Graceville.—Davis gin, owned by Sampson Cotton Oil Co.

Fla., Kissimmee.—J. F. O'Berry's residence.

Fla., Manatee.—Rushon Novelty Works; loss \$35,000.

Fla., Starke.—C. A. Thomas' residence.

Ga., Milledgeville.—Stevens Bros. & Co.'s sewer pipe and fire-clay works; loss \$50,000 to \$75,000.

Ga., Rome.—O. B. Stillwell's residence.

Ky., Lamasco.—Baptist Church. Address The Pastor.

Ky., Moorefield.—Lutcher Vice's store; W. M. Tucker's residence; loss \$5000.

La., Oak Grove.—Masonic Hall, Methodist Church (address The Pastor), residences of J. H. Morse and Gaye Gunter, and other buildings; loss \$15,000.

Md., Baltimore.—Pennsylvania R. R. Co.'s No. 3 grain elevator and contents; loss probably \$500,000.

Md., Beltsville.—Ulle Bros.' store, Edw. M. Ulle's residence, 2 barns and granary; loss \$25,000 to \$30,000.

Miss., Ackerman.—P. P. Buck's residence.

Miss., Greenwood.—Mississippi Deaf and Dumb Institute's industrial building; estimated loss \$75,000; H. Clay Roberts, Chrmn., Trustees.

Miss., Wiggins.—D. Matheson's residence; loss \$8000.

Mo., New London.—C. F. Rowland's store, Rails County Times office, A. G. Kennedy's store, Woods & Weaver's moving-picture theater, Park Hotel and Richard Edding's barber shop; loss \$45,000.

N. C., Mt. Gilead.—F. McAnally's block of buildings occupied by Stutts Bros., C. F. Scarboro and others; loss \$4000.

N. C., Richlands.—Dover & Southbound Ry. Co.'s freight and passenger depot; loss \$5000; D. W. Richardson, Genl. Mgr., Dover, N. C.

Okla., Marietta.—W. C. Peden's residence.

Okla., Ringling.—Three buildings owned by Frank Wildman, Oklahoma City.

Okla., Talihina.—D. Thomas & Co.'s store, loss \$12,000; Thomas Hardware & Furniture Co. and Thomas Drug Co.'s building, loss \$18,000; Wooden Mercantile Co.'s store, loss \$3000.

S. C., Newberry.—West End Baptist Church; loss \$5000. Address The Pastor.

S. C., Newberry.—West End Baptist Church; loss \$3500. Address The Pastor.

Tenn., Chattanooga.—City Auditorium; loss \$25,000. Address The Mayor.

Tenn., Etowah.—Elenore Hotel, owned by Dr. J. O. Nichols; loss \$10,000.

Tenn., Greeneville.—McDermott Bldg., occupied by R. F. Bird; F. P. Hightberger's store building; Dave Susong's building; Jas.

Johnson's residence; Mrs. Dabb's store; loss \$15,000.

Tenn., Greeneville.—Pure Food Grocery Store and other buildings; loss \$7000.

Tenn., Monticello.—Cumberland House; loss \$6000.

Tex., Celina.—Celina Mill & Elevator Co.'s mill, 2 buildings and 2 warehouses; total loss \$65,000.

Tex., Center.—Polly Hotel, owned by C. H. Polly; loss \$5000.

Tex., Bonham.—G. W. Clayton's cotton compress.

Tex., Fort Worth.—S. T. Bibb Company's plant and Southern Trading Company's store; loss \$40,000.

Tex., Jefferson.—Lyric Theater, owned by Dr. W. J. Sedberry; 2 buildings owned by R. F. Sherrell; Dr. J. A. R. Mosely's building; loss \$60,000.

Tex., Lockhart.—W. J. Terry's residence; loss \$5000.

Tex., San Antonio.—Leonard Watson's residence.

Tex., Willis Point.—James Harris' residence; loss \$4000.

Va., Bedford.—Flour mill, owned by W. A. and Heywood Nance and R. L. Burroughs.

Va., Fredericks Hall.—John Crank's residence.

W. Va., Beckley.—Dr. U. G. Cook's residence.

W. Va., Parkersburg.—Citizens' Lumber Co.'s plant; loss \$100,000.

Tex., Houston.—F. O. E. will erect \$50,000 building; 4 stories; John H. Lang, Jr., Frank B. McCurdy, Henry Alberts and others, Com.

Tex., Roby.—W. O. W. and I. O. O. F. will probably erect brick building.

W. Va., Charleston.—Leroy Swinburn, Chrmn., receives bids until June 21 to remodel Odd Fellows' building; plans and specifications at office of A. G. Higinbotham, Charleston.

W. Va., Clarksburg.—Y. W. C. A. will erect \$10,000 building.

### BANK AND OFFICE

Ala., Florence.—First National Bank will erect building.

Fla., Miami.—Hickson & Whitener will erect store, office and theater building. (See Theaters.)

Ga., Augusta.—Georgia Railroad Bank will expend \$20,000 to improve interior of building.

Ga., Augusta.—Real Estate Development Co. will erect store, theater and office building. (See Stores.)

Ga., Macon.—Fourth National Bank is having plans prepared by Hupp & Shelverton, Macon, to improve building; elevators, toilets, stairways, etc.; cost \$10,000.

Ga., Statesboro.—First National Bank, Brooks Simmons, Pres., will erect bank building; construction begins in fall.

N. C., Morganton.—Pitts & Giles will erect 2-story office building; cost \$25,000.

Tenn., Lebanon.—F. J. Sanders will erect 5 buildings probably to contain offices on second floor. (See Stores.)

Tenn., Nashville.—Harris Estate has plans by Donald W. Southgate, 1105 8thman Bldg., Nashville, to remodel office building; bids opened June 15; separate bids for plumbing.

Tex., Dallas.—Texas Company, Houston, will erect \$9000 addition to office building.

Va., Covington.—Covington National Bank will erect bank building.

### CHURCHES

Ala., Birmingham.—Beth-El Jewish Congregation, 1705 6th Ave. North, will erect building; J. Bonfeld, A. Reuben, I. R. Reubenstein and others, Com.

Ark., Jonesboro.—First Baptist Church, P. C. Barton, Chrmn. Bldg. Com., will erect \$60,000 building; electric fixtures; probably install pipe organ.

Ark., Rector.—Methodist Church will erect \$10,000 brick building. Address The Pastor.

Ark., Stuttgart.—Baptist Church, Rev. Mr. Carter, pastor, plans to erect building.

Fla., Miami.—First Baptist Church is having plans prepared by J. S. Andrews, Miami, for building; 84x120 ft.; 3 stories; concrete or hollow tile; seating capacity 1800; cost \$90,000. Address The Pastor or architect. (Lately noted.)

Fla., Perry.—Methodist Episcopal Church, South, will erect building; brick; auditorium to seat 331; Sunday-school to seat 225; metal tile roof; steam heat; electric lights; cost \$12,000 to \$14,000; architect not selected; construction probably begins within 90 days. Address R. Ira Barnett. (Lately noted.)

Fla., St. Petersburg.—First Baptist Church has plans for building. Address The Pastor.

Fla., Sebring.—Livingston Mission Church is having plans prepared by Bonfoey & Elliott, Tampa, for building; stucco on metal lath; cost \$17,000.

Ga., Atlanta.—Methodist Episcopal Church has plans by Chas. Edward Choate, Atlanta, for building; brick and concrete; stucco exterior; furnace blast heating system; cost \$12,000; bids opened June 10. (Lately noted.)

Ga., Atlanta.—Reed Street Baptist Church will erect stone building. Address The Pastor.

Ga., Augusta.—St. Paul's Church has plans by H. T. E. Wendell, Augusta, to erect church and parish-house. (Noted in Mech.)

Ga., Augusta.—St. James Church is having plans prepared by G. Lloyd Preacher, Augusta, for parsonage.

Ga., Lindale.—Methodist Church will erect building; cost \$5000. Address The Pastor.

Ga., Rome.—South Broad Methodist Church will erect building; brick; probably trimmed in Georgia marble. Address The Pastor.

Ga., Savannah.—Jewish Synagogue has plans by Levy & Clarke, Germania Bank Bldg., Savannah, for repairs and painting building.

Ga., Thomasville.—Methodist Church rejected all bids to erect addition to building;

## BUILDING NEWS

### BUILDINGS PROPOSED

#### APARTMENT-HOUSES

D. C., Washington.—C. Elton James, Southern Bldg., will erect apartment building; 4 stories; 20 suites of 3 to 5 rooms and bath; completion in Oct.

D. C., Washington.—L. E. Breuninger has plans by H. L. Breuninger, 5500 16th St. N. W., Washington, for apartment-house; 3 stories; brick; cost \$20,000.

D. C., Washington.—Randall H. Hagner has plans by Geo. M. Ray, 1211 Connecticut Ave. N. W., Washington, for apartment-house; 4 stories; brick; cost \$35,000.

Fla., Miami.—A. H. Adams will erect store and apartment building. (See Stores.)

Fla., Miami.—Chas. Brickell has plans by Geo. L. Pfeiffer, Lemon City, for apartment-house at foot of 20th St.; 3 stories and roof garden; cost \$60,000.

Fla., Pensacola.—W. C. Frederic, Thiesen Bldg., Pensacola, is preparing plans for apartment house; 2 stories; brick; 4 suites; semi-fireproof; Barrett roofing; wire glass windows; steam heat; vacuum cleaning system; disappearing beds; electric ranges; cost \$12,000.

Fla., Tampa.—A. F. Caltagessie will erect flat and store building. (See Stores.)

Ga., Atlanta.—Hanbury & Caldwell have plans by Lelia Ross Wilburn, 305 Peters Bldg., Atlanta, for 2-family apartment house; 2 stories; frame; pressed brick foundation; shingle roof; cement veranda floors; electric lights; cost \$3750; day labor.

Ga., Augusta.—G. Lloyd Preacher will soon call for bids to erect apartment-house on Greene St.

Mo., Kansas City.—Ed. Flavin will erect apartment house; 2 stories; 2 suites; cost \$5000.

Mo., Kansas City.—Mrs. H. Anderson will erect 3-story 6-room apartment house; cost \$7500.

Mo., St. Louis.—Trade Realty & Building Co. will erect two 6-family apartment buildings; 5-room suites; hardwood finish.

Okla., Tulsa.—M. J. Glass will erect apartment-house; brick; cost \$19,000.

Tenn., Knoxville.—Mrs. Sam McKinney has plans by J. H. Ryne, Knoxville, for addition to McKinney Bldg.; will add 1 story and remodel for apartment-house; brick; 6 suites; cost \$10,000.

Tenn., Lebanon.—F. J. Sanders will erect 5 buildings probably to contain apartments on upper floors. (See Stores.)

Tenn., Nashville.—Geo. J. Stubblefield has plans by Thos. W. Gardner, associated with Edward E. Dougherty, Nashville, for 2-family apartment-house; bids opened June 10.

Tex., El Paso.—Beaudette & Cropper will erect apartment-house at Texas and Alameda Sts.; cost \$22,000.

Tex., El Paso.—Maurice J. Cope, 3220 Mountain St., has plans by Frost & Frost, Mills Bldg., El Paso, for apartment-house; 3 stories and basement; brick and cement; 14 four- and five-room apartments; roofing not decided; oak floors; city lighting; cost about \$25,000; bids opened June 15 to 20. (Lately noted.)

Tex., San Antonio.—Dr. G. P. Robertson plans to erect 2-story frame apartment-house.

Tex., San Antonio.—Ernest P. Behles is preparing plans for 3-story, 12-room apartment-house; work begins within 30 days.

Tex., San Antonio.—Mrs. L. Kaufman has plans by Ernest P. Behles, San Antonio, for apartment-house; 4 apartments of 4 rooms and bath; disappearing beds; hardwood floors; porches, etc.; cost \$8000.

Va., Lynchburg.—W. L. Moore will erect apartment-house; cost \$9000.

Va., Norfolk.—H. A. Williams will erect 4-family apartment-house; cost \$6500.

Va., Richmond.—T. F. Boyle will erect 2-story brick tenement house; cost \$7500.

#### ASSOCIATION AND FRATERNAL

Ala., Montgomery.—Masonic Home will erect \$15,000 school building; concrete and brick; several classrooms and auditorium; Ben M. Jacobs, Chrmn. Board of Control, Birmingham.

Fla., Orlando.—Fraternal Building Association has plans by Murray S. King, Orlando, to erect building; 60x100 ft.; 2 stories; brick; fireproof; 3 stores on first floor; lodgerooms on second; cost about \$15,000; will soon invite bids.

Fla., St. Petersburg.—Orange Lodge No. 35, I. O. O. F., has plans by M. E. Benjamin, 424 Central Ave., St. Petersburg, for lodge halls, auditorium and storerooms; 2 stories; 50x130 ft.; reinforced concrete, hollow-tile curtain walls and stucco; wood trusses, asphalt and slate shingle roofing tile; concrete and wood floors; steam heat; electric lights; cost \$15,000; construction begins about July 1. Address architect. (Lately noted.)

Mo., Joplin.—I. O. O. F. rejected bids to erect lodge and business building, and will receive new bids until June 15; 50x120 ft.; 2 stories; brick and stone; ordinary construction; tar and gravel roof; concrete floors on first floor; steam heat; city lighting; cost \$15,000; C. H. Sudhoefer Co., Archt., 215 W. 9th St., Joplin, may be addressed. (Lately noted.)

Okla., Waukomis.—A. F. and A. M. are reported to erect brick lodge building. (See Stores.)

N. C., Durham.—Y. M. C. A. is reported to expend \$25,000 to remodel building; will provide auditorium to seat 300, additional dormitory rooms, etc.

2 stories; brick; slate roof; hot-air heat; C. Frank Galliber, Archt., Montgomery, Ala. (Previously noted.)

Ky., Lexington.—Broadway Christian Church is having plans prepared by Richards, McCarty & Bulford, Columbus, O., for building to replace burned structure; brick and stone; probably 3 stories and basement; 104x192 ft.; cost about \$110,000; Roger H. Smith, Chrmn. Bldg. Com. (Previously noted.)

Ky., Lexington.—Park Avenue Methodist Episcopal Church will erect building; cost \$25,000 to \$30,000. Address The Pastor.

Ky., Louisa.—Methodist Church, South, Rev. L. E. McEldowney, Pastor, will erect \$16,000 building; 50x75 ft.; brick and stone; composition roof; cement and wood floors; hot-water heat; gas and electric lights; bids opened about June 17; Uigginbotham & Knapp, Archts., Charleston, W. Va.; foundation begun. Address M. S. Burns, Louisa.

Md., Baltimore.—Redemptorist Fathers have plans by F. E. Tormey, 72 Gunther Bldg., Baltimore, for chapel at Most Holy Redeemer Cemetery; contractors estimating are: Monmonier & Sorrell, 1711 McCulloh St.; L. Schoenlein & Son, 227 E. Baltimore St.; J. J. O'Connor, 427 E. Lexington St., all of Baltimore.

Md., Brooklyn.—Men's Club of Brown Memorial Presbyterian Church, Rev. John McDowell, Pastor, 1316 Park Ave., Baltimore, will improve neighborhood-house at Curtis Bay; plans include dispensary, etc.; cost \$6000.

Md., Sparrows Point.—St. John's Evangelical Lutheran Church, Rev. A. D. Bell, pastor, is having plans prepared by Walter M. Gieske, 65 Gunther Bldg., Baltimore, Md., for remodeling building.

Md., Govans.—Boundary Avenue Methodist Episcopal Church, Rev. F. C. Reynolds, Pastor, 719 Arlington Ave., will erect addition to cost about \$20,000; 46x90 ft.; stone; slate roof; wood floors; steam heat; electric lights; cement sidewalks; J. E. Laferty, Archt., 11 Pleasant St., Baltimore; bids opened June 15; contractors estimating are: Cowan Building Co., 106 W. Madison St.; G. Walter Trovelli, Eutaw and McCulloh Sts.; E. F. Bennett Building Co., 123 S. Howard St.; Willard E. Harn Co., 213 N. Calvert St.; Consolidated Engineering Co., Calvert Bldg.; A. Kuell, Jr., 215 St. Paul St.; R. B. Mason, 308 W. Madison St.; C. W. Simpson & Co., 415 E. Lexington St.; J. M. Peregrin, Linwood and Merville Aves.; C. C. Watts, 407 E. 25th St., all of Baltimore. Address The Pastor. (Lately noted.)

N. C., Hamlet.—Baptist Church, Rev. A. T. Howell, pastor, will erect church and Sunday-school building; cost \$15,000; also erect parsonage.

N. C., Winston-Salem.—Salem Baptist Church, Rev. Mr. Naff, Pastor, will erect building.

N. C., Winston-Salem.—Grace Methodist Church will erect building; plans by Northup & O'Brien, Winston-Salem, call for concrete basement; first story walls, red brick; upper walls, stucco panels; slate roof; gray marble entrance; 12 or more Sunday-school rooms, separated by sliding doors; pastor's study, ladies' parlor, etc.; seating capacity 800. (Previously noted.)

Okla., Bartlesville.—First Baptist Church, L. A. Roland, Chrmn. Building Comm., receives bids until June 20 to erect annex to building; 37.8x57.4 ft.; brick; gravel roof; concrete basement floor; upper floors wood; electric lights; cost \$5000. (Lately noted.)

Okla., Commerce.—Baptist Church, Rev. J. R. Warren, pastor, will erect building.

Okla., Grandfield.—Catholic Church, Rev. Nicolas Schmidt, pastor, will erect building.

Okla., Ponca City.—St. Felix Catholic Church plans to erect building. Address The Pastor.

Okla., Miami.—Methodist Church has plans by Hawk & Parr, Oklahoma City, for building; ordinary construction; brick and stone; art and florentine glass; electric lights; cost \$10,000.

Okla., Shawnee.—First Methodist Church is having plans prepared by Hawk & Parr, Oklahoma City, for \$25,000 building; brick and stone; ordinary construction; art and florentine glass; pipe organ; steam heat; electric lights; contract let about June 15.

Okla., Tulsa.—Jewish Congregation will erect \$25,000 temple. Address The Rabbi.

S. C., Greenwood.—Bonfoey & Elliott, Tampa, Fla., are preparing plans for church; bungalow type; cost \$3000.

S. C., Newberry.—West End Baptist Church will rebuild structure noted damaged by fire at loss of \$5000; W. T. McKinney and J. Y. Jones are interested.

Tenn., Clarksville.—Trinity Episcopal Church has plans by G. Tandy Smith, Jr., Clarksville, for parish-house; auditorium, 60x40 ft.; stage 18x20 ft.; accordion doors; drillroom, 80x40 ft.

Tex., Dallas.—Trinity Methodist, First Methodist and University Place Methodist Churches will consolidate; erect First Methodist Church, to cost \$250,000, and Highland Park Church, about \$100,000; Bishop Edwin D. Mouzon and Rev. O. F. Sennsbaugh, presiding elder, both of Dallas, are interested.

Tex., Denton.—Baptist Church will erect parsonage. Address The Pastor.

Tex., Graham.—First Christian Church will erect building; 80x90 ft.; brick and Denison tile construction; tile metal roof; cement and wood floors; electric lights; cost \$12,000 to \$13,000; hot-air heat, \$400 to \$500; date opening bids not set; C. W. Bulger & Sons, Archts., Praetorian Bldg., Dallas. (Lately noted.)

Tex., Seymour.—First Baptist Church has plans by C. W. Bulger & Son, Praetorian Bldg., Dallas, for lately noted building; 2 stories; 80x90 ft.; pressed brick; sandstone trimmings; tile clay roof; wood and tile floors; metal lath partitions; skylight; art glass; tile mantels; hot-air heat; electric fixtures; construction, by day labor, begun; cost \$13,000. (See Machinery Wanted—Building Materials; Art Glass.)

Tex., Terrell.—First Baptist Church has plans by L. W. Wells, Terrell, for Sunday-school addition; 36x46 ft.; brick and wood; gravel roof; wood floors; cost \$3600. (Lately noted.)

Tex., Waxahachie.—Central Presbyterian Church has plans by C. W. Bulger & Son, Praetorian Bldg., Dallas, for building; 80x90 ft.; 2 stories and basement; brick and stone; asphalt and slate roof; cement and edge grain pine floors; cost \$40,000; steam heat, about \$2000; electric lights, about \$1400; date opening bids not set. (Lately noted.)

Tex., Waxahachie.—First Presbyterian Church is having plans prepared by C. W. Bulger & Son, Praetorian Bldg., Dallas, for building; 40x90 ft.; brick and stone; asphalt shingle or slate roof; cement and wood floors; hot air or steam heat; cost \$18,000; date opening bids not set. (Lately noted.)

Va., Danville.—Calvary Methodist Church opens bids about June 20 to erect building; 74x44 ft.; brick; tin roof; yellow pine floors; cost \$25,000; low pressure steam heat, \$1700; Pritchett & Henderson, Archts., Dudley Bldg., Danville, may be addressed.

Va., Newport News.—St. Paul's Episcopal Church has plans by C. T. Holtzclair, Archt., Newport News; R. T. Pierce and others, Bldg. Com. for parish house.

Va., Newport News.—Baptist Church, Twenty-third St. and Jefferson Ave., Rev. C. D. Henderson, pastor, receives bids until June 14 for repairs to building; plans and specifications at office R. T. Stewart, 55 Hampton Ave.

W. Va., Hinton.—Hinton Presbyterian Church will erect building. Address The Pastor.

### CITY AND COUNTY

Ala., Birmingham.—Fire Station.—City will erect fire stations at Five Points and Wylam; Geo. B. Ward, Mayor.

Ark., Little Rock.—Fire Station.—Board of Public Affairs opens bids June 15 for fire station in Ninth Ward.

Fla., Miami.—Jail.—County voted \$25,000 bonds to erect jail; Z. T. Merritt, Clerk, Board of County Commrs., Dade County. (Previously noted.)

La., New Orleans.—Engine-house.—A. G. Ricks, Commr. Public Finances, City Hall Bldg., receives bids until June 20 to erect engine-house, Napoleon Ave. and Pitt St.

Okla., Madill.—Fair.—Jas. Ross, Secy., Park Com., receives bids until June 19 to erect 6 county fair buildings; plans and specifications at office Mr. Ross.

Tenn., Memphis.—Aviary and Palm House. Park Board is having plans prepared for aviary and palm house at Overton Park Zoo; 120x50 ft.; 8-foot wall for foundation of glass dome, supported by steel girders; Col. Robt. Galloway is interested.

Tex., Houston.—Shelter-house.—City has plans by Maurice J. Sullivan, Houston, for shelter-house in Herman Park; bids opened June 12; also has plans by Mr. Sullivan for shelter-house and swimming basin in Woodland Park; bids opened June 19; bids for latter let in 3 separate contracts—general contract, plumbing and wiring; Ben Campbell, Mayor.

Tex., Paris.—Jail.—Lamar County Commrs. will erect courthouse and jail. (See Court-houses.)

Tex., San Antonio.—Fair.—City votes June 29 on \$1,000,000 bonds for Texas Bicentennial Exposition. Address The Mayor.

Va., Richmond.—Home.—Building Inspector, John E. Butler, receives bids until June 20 to repair City Home.

### COURTHOUSES

Tex., Paris.—Lamar County Commrs. will erect courthouse and jail; about 100x100 ft.; 4 stories and basement; fireproof; reinforced concrete; composition roof; reinforced concrete floors; low-pressure gravity heating plant; cost \$150,000; date opening bids not settled; Sanguinet & Statz, Fort Worth, and Barry & Smith, Paris, Asso. Archts. (Lately noted.)

### DWELLINGS

Ala., Birmingham.—Sloss-Sheffield Steel & Iron Co. will build 15 tenement houses and school at Russellville; ore mines, commissary at Cardiff; coal mine and 30 tenement houses at Bessele coal mine.

Ala., Marion.—W. C. Curb will erect 6-room residence; also erect store.

Ala., Russellville.—Sloss-Sheffield Steel & Iron Co., Birmingham, will erect 15 tenement houses. (See Ala., Birmingham.)

D. C., Washington.—John L. Knopp has plans by W. S. Plager, 2116 Kearney St. N. E., Washington, for 2 residences 3202-04 20th St. N. E.; 2 stories; tile construction; cost \$8000.

D. C., Washington.—H. R. Howenstein, 1314 F St. N. W., has plans by W. R. Talbott, 1314 F St. N. W., Washington, for 2 residences 1114-1116 5th St. N. E.; 2 stories; brick; also erect six 2-story brick residences 1102-12 5th St. N. E.; has plans by W. E. Houser for residence 1100 5th St. N. E.; 2 stories; brick; cost \$20,000.

D. C., Washington.—Harry A. Kite, 1338 G St., has plans by Geo. T. Santmyers, 216 Kenos Bldg., Washington, for 5 one-story frame residences, 1004-18 Douglas St., N. E.; cost \$15,000.

Fla., Fort Myers.—H. P. Johnson will erect winter residence.

Fla., Indian Beach.—Beach Development Co., Tampa, is having plans prepared by Bonfoey & Elliott, Tampa, for 10 bungalows; cost \$2000 each.

Fla., Miami.—W. W. Wheeler will erect residence; 3 stories and basement; hollow-tile walls, stucco and ornamental plaster trim; hot-air heat; tile roof; Italian style; also erect garage; 2 stories; cost about \$30,000.

Fla., Miami.—Geo. Bunnell will erect residence and garage; cost \$6000.

Fla., Miami.—William Lehman, Cleveland, O., is reported to erect \$10,000 residence.

Fla., Miami.—Dr. J. M. Jackson is reported to erect residence.

Fla., Miami.—H. R. Chase will erect 10 dwellings.

Fla., Miami.—J. J. Bridges will erect 20 dwellings.

Fla., Miami.—Chas. Gibbons will erect 10 dwellings.

Fla., Tampa.—Dr. S. W. Allen is having plans prepared by A. I. Shaw, 307 American Bank Bldg., Tampa, for residence; cost \$5000; opens bids June 17.

Fla., Winter Haven.—J. A. G. Allen is having plans prepared by Bonfoey & Elliott, Tampa, for residence; stucco on metal lath; tile roof; cost \$12,000.

Ga., Atlanta.—F. C. Wilkerson & Bro will erect two 1-story frame residences; cost \$5000; day labor.

Ga., Atlanta.—F. C. Wilkinson & Bro. will erect two 1-story frame residences; day labor; cost \$5000.

Ga., Atlanta.—M. L. Rauschenburg will erect 2-story brick veneer residence; cost \$5000; day work.

Ga., Augusta.—Dr. T. L. Davis is having plans prepared by G. Lloyd Preacher, Augusta, for residence on Hickman Rd.

Ga., Columbus.—Ralph Edge has plans by F. Roy Duncan, Columbus, for residence; brick-veneer; composition shingle roof; wood floors; electric lights; cost \$6000; hot-air heat, \$255; construction by day labor under supervision of archt. (Previously noted.)

Ga., Savannah.—Eli B. Barnes will erect 2-story frame residence.

Ky., Louisville.—Ambrose Bruner will erect 4 hollow-tile residences; cost \$5000.

Ky., Louisville.—Ambrose Bruner will erect 4 hollow-tile residences; cost \$4800.

Ky., Mayfield.—R. N. Maddox has plans by Ellis N. Wickersham, Mayfield, for brick-veneer, stone and stucco bungalow; asphalt

shingle roof; wood floors; cost \$3000; bids opened in about a week.

Ky., Louisville.—H. L. Nevin will erect stucco residence; cost \$3500.

Ky., Paducah.—C. E. Kipping has plans by D. Harry Jamieson, Paducah, for residence; 25x41 ft.; brick; composition shingle roof; wood floors; electric lights; cost \$7000; hot-water heat, \$600; bids opened June 10. Address Archt. (Lately noted.)

Ky., Winchester.—A. Howard Hampton will erect residence.

La., New Orleans.—Provident Building and Loan Association will erect 1-story residence; cost \$4200.

La., New Orleans.—Realty Asset Co. will erect 2 residences; cost \$4200.

Md., Baltimore.—Wm. G. Queen, Main Ave., near Belvidere Ave., will erect residence; 2½ stories; frame; 28x28 ft.; cost \$4000.

Md., Baltimore.—Peter Grogan Estate, 2501 E. Preston St., has plans by Jos. F. Hirt, 827 N. Luzerne Ave., Baltimore, for ten 2-story brick residences, 2514-32 E. Biddle St.; 13x49 ft.; cost \$10,000.

Md., Baltimore.—Phillip S. Morgan, 12 E. Lexington St., will erect 5 two-story brick residences 20.8x36 ft., at 1223-31 Poplar Grove St.; cost \$12,000.

Md., Baltimore.—Wm. G. Queen, Main Ave., near Belvidere Ave., will erect residence; 2½ stories; frame; 28x28 ft.; cost \$4000; Walter F. Hildey, Archt., 151 St. Charles Ave., Baltimore.

Md., Baltimore.—J. Charles Linthicum & Bro., 217-19 St. Paul St., has purchased site at Irvington and will erect number of 2-story dwellings.

Md., Baltimore.—George Yeatman, 1512 W. Lafayette Ave., has plans by Edward L. Palmer, Jr., Munsey Bldg., Baltimore, for 9 brick cottages in Guilford; French style; 22x32 ft.; gray slate roofs; brick fireplaces; second floor will have deck porch, 3 bedrooms and bath; third, 2 bedrooms and bath; cost \$15,000.

Md., Baltimore.—Rev. Kaspar Kurylo, 238 S. Ann St., will erect bungalow in Villa Nova.

Md., Baltimore.—Chas. Herbold & Sons, 2768 W. North Ave., will erect 5 dwellings on Dukeland Ave. north of North Ave.; 13x46 ft.; 2 stories; brick; cost \$10,000.

Md., Mt. Washington.—Charles Kemper, Texas, Md., will erect 6 bungalows; cost \$21,800; recently noted to have erected 10 bungalows in Mt. Washington.

Md., Mt. Washington.—Wm. A. Foreman Building Co., York Rd. nr. Linden, Baltimore, will erect 6 cottages in Mt. Washington Hts.; 38x46 ft.; 2½ stories; 10 rooms; slate roofs; beamed ceilings; hardwood floors; brick fireplaces; cost \$27,000.

Md., Roland Park.—Roland Park Co. is having plans prepared by Edward L. Palmer, Jr., Munsey Bldg., Baltimore, for residence on Fenchurch Rd.; 68x29½ ft.; garage in rear; cost \$10,000.

Mo., Kansas City.—C. W. Hamrick will erect four 2-story stucco residences; cost \$10,000.

Mo., Kansas City.—Marguerite G. McEligott will erect 2 residences; cost \$10,000.

Mo., Kansas City.—W. R. Braden, of Irving-Pitt Mfg. Co., plans to erect residence on Madison Drive.

Mo., Kansas City.—A. E. Hudson will erect 2 residences; 2 stories; stucco veneer; cost \$4200.

Mo., Kansas City.—H. F. McElroy will erect 3 residences; 1½ stories; frame; cost \$4500.

Mo., Kansas City.—Zurn Building & Investment Co. will erect 8 residences on Bellefontaine Ave. and E. 38th St.; 20x34 ft. and 20x26 ft.; frame with stucco-veneer; shingle roofs; hot-air heat; cost \$22,000. (Lately noted.)

Mo., Kansas City.—Charles F. Kincaid will erect 6 residences; 1½ stories; cost \$9000.

Mo., Kansas City.—A. E. Hudson will erect dwelling; stucco; cost \$4300.

Mo., Kansas City.—L. M. Rowland will erect brick residence; cost \$17,000.

Mo., Kansas City.—H. F. McElroy will erect 3 residences; 2 stories; frame; cost \$4500.

Mo., Kansas City.—Elmer E. Hay, 323 Rialto Bldg., will erect residences at 4043-4047 Bellefontaine St.; 20x26 ft. and 20x34 ft.; stucco; shingle roof; oak floors; electric lights; concrete sidewalks; hot-air heat, \$99, and \$100. (Lately noted.)

Mo., Kansas City.—W. G. Guthrie, of Sedalia, Mo., plans to erect residence on Van Brunt Blvd.



Mo. Kansas City.—C. A. Braley will erect residence; cost \$16,000.  
 N. C., Asheville.—Dr. J. A. Sinclair will erect 10-room residence; cost \$6000.  
 N. C., Asheville.—W. O. Barnard will erect 6-room residence; cost \$3000.  
 N. C., Durham.—J. S. Cobb will erect residence; cost \$20,000.  
 N. C., Greensboro.—J. W. Long will erect residence; 2 stories; frame; cost \$4000.  
 N. C., Wilmington.—J. B. McCabe will erect residence at Winona Ter.  
 N. C., Winston-Salem.—M. D. Stockton is having plans prepared for 2 residences.  
 Okla., Oklahoma City.—Dr. L. A. Riley has plans by Hawk & Parr, Oklahoma City, for 2-story residence; face brick; hollow tile; oak and walnut finish; tile roof; electric lights; cost \$10,000.  
 Okla., Oklahoma City.—C. E. Huffman will erect two 1-story residences; also remodel front and interior of residence; cost \$5000.  
 Okla., Oklahoma City.—N. B. Blake has plans by Hawk & Parr, Oklahoma City, for 2-story residence; cost \$15,000; materials include oak, pine, birch trim, tile, stucco, plate glass, electric and plumbing fixtures.  
 Okla., Tulsa.—Mrs. L. L. Lewis will erect frame residence; cost \$3000.  
 Okla., Tulsa.—R. K. Hughes will erect residence; frame; cost \$3000.  
 Okla., Tulsa.—Dan Hunt will erect residence; cost \$25,000.  
 Okla., Tulsa.—L. A. Z. Aaronson will erect residence; cost \$22,000.  
 S. C., Anderson.—G. H. Bailes is considering erecting 2 or 3 cottages on Hampton St.  
 S. C., Greenville.—Wm. Goldsmith Co. will erect residence; cost \$3000.  
 Tenn., Knoxville.—W. L. Welcker has plans by J. H. Ryno, Knoxville, for residence; 1½ stories; brick veneer; hot-air heat; hardwood floors; plans ready June 20; cost \$6000.  
 Tenn., Knoxville.—F. E. Hann has plans by J. H. Ryno, Knoxville, for residence; 3 stories; brick-veneer; steam or hot-water heat; asphalt shingle roof; hardwood floors; cost \$5000.  
 Tenn., Memphis.—Charles H. Sims will erect residence; 2 stories; 16 rooms; cost \$6000.  
 Tenn., Memphis.—C. E. Moody will erect 4 cottages; 6 rooms; cost \$10,000.  
 Tenn., Memphis.—J. A. Haley will erect 4 cottages; 6 rooms; cost \$3000.  
 Tenn., Memphis.—John R. Klyce will erect 15 residences on Vinton and Harbert Aves.; cost \$33,750.  
 Tenn., Nashville.—Chas. Preston will erect brick-veneer bungalow; cost \$5000.  
 Tenn., Nashville.—Robert Smith has plans by C. K. Colley, Nashville, for bungalow; brick; warm air heat; bids opened June 17; contract let in detail.  
 Tenn., Nashville.—Frank Thomas will erect brick-veneer bungalow; cost \$3500.  
 Tenn., Nashville.—Wm. Hunt will erect brick-veneer bungalow; cost \$4500.  
 Tenn., Sewanee.—Dr. Walter Hulinen, of University of the South, deferred erection of residence and will probably open bids in Sept. or Oct.; plans by Eugene H. Knight, 1124 Brown-Marx Bldg., Birmingham, call for structure 70x50 ft.; frame; wood shingle roof; cost \$7000. (Noted in April.)  
 Tex., Dallas.—E. L. Haskins will erect 2-story, 8-room frame residence; cost \$5000.  
 Tex., Dallas.—James Storrie will erect 2-story, 16-room frame building; cost \$3500.  
 Tex., Dallas.—M. E. Randall will erect residence; 2 stories; 10 rooms; frame; cost \$2000.  
 Tex., Dallas.—C. P. Sites, Southwestern Life Bldg., Dallas, is preparing plans for \$10,000 residence; brick; plastic ornaments; hot-water heat; tile floors; electric lights, etc.  
 Tex., Dallas.—Cobb & Crofford are having plans prepared by Brickey & Brickey, Dallas, for \$10,000 residence; hot-water heat; electric lights, etc.  
 Tex., Dallas.—J. G. Webster will receive bids for \$12,000 residence; plans by Woerner & Cole, Sumpter Bldg., Dallas, call for brick and tile construction; tile roof; art glass; hot-water heat; electric lights.  
 Tex., Dallas.—Minnie E. Binford will erect residence; 9 rooms; 2 stories; brick; veneer; cost \$1000.  
 Tex., Fort Worth.—W. L. Anderson will erect 10-room 2-story wooden residence; cost \$5500.  
 Tex., Fort Worth.—R. Melton is having plans prepared by R. L. Weinman, Fort Worth, for residence.

Tex., Houston.—Carrie Burger will erect \$3000 residence.  
 Tex., Houston.—F. C. Proctor, of Beaumont, Tex., will erect residence on Rossmoynne Blvd.  
 Tex., San Antonio.—Ed Henkell will erect residence on Beacon Hill.  
 Tex., San Antonio.—Geo. C. Eichlitz will erect residence.  
 Va., Norfolk.—E. W. White will erect residence; 2 stories; frame; cost \$4500.  
 Va., Richmond.—L. H. Phillips will erect 2-story brick dwelling; cost \$7000.  
 Va., Richmond.—W. H. & M. O. Betts will erect four 2-story brick residences; cost \$11,800.  
 Va., Richmond.—F. A. Lamb will erect 2-story brick dwelling; cost \$5000.  
 Va., Richmond.—J. J. Quinn will erect 2-story frame stuccoed residence; cost \$4975.  
 Va., Richmond.—Roland Park Corp. will erect 2-story frame residence on Hawthorne Ave.; cost \$4800.  
 Va., Richmond.—F. A. Lamb will erect 2-story brick dwelling; cost \$5000.  
 Va., Richmond.—John F. Crawford will erect two 2-story brick dwellings; cost \$5600.  
 Va., Richmond.—J. D. Spencer will erect 2-story frame dwelling; cost \$4250.  
 Va., Roanoke.—S. A. and F. E. Duerson will erect one 2-story residence; brick-cased; cost \$3500.  
 W. Va., Beckley.—Dr. U. G. Cook will rebuild residence noted damaged by fire.

## GOVERNMENT AND STATE

N. C., Waynesville.—Postoffice.—Trensurey Dept., Jas. A. Wetmore, Act. Supr. Archt., Washington, D. C., opened bids to erect post-office; A. R. Blair, Montgomery, Ala., is lowest bidder for limestone construction at \$52,780; W. H. Fissell & Co., 1133 Broadway, New York, are lowest bidders at \$56,000 for sandstone construction. (Lately noted.)  
 Tex., Fort Bliss—Stables.—Depot Quartermaster, El Paso, Tex., receives bids until June 20 to erect 2 troop stables and 20-ft. extension to each of 10 stables at Fort Bliss; information on application.  
 Tex., Fort Sam Houston—Dormitories, etc. Constructing Quartermaster receives bids until June 20 to erect following brick buildings, including plumbing, electric lighting and hot-water heating and central heating plant; dormitories, surgical pavilion and laboratory; further information on application.  
 HOSPITALS, SANITARIUMS, ETC.  
 Ala., Dothan.—Dr. E. F. Moody has plans by Garnett J. Dye, Dothan, for hospital; 3 stories; brick veneer; 20 rooms; steam heat; will let contract at once. (Lately noted.)  
 D. C., Washington.—Quartermaster Corps, Edward Canfield, Jr., Captain, receives bids until July 6 to erect nurses' home and hydro-therapeutic ward at Soldiers' Home; plans and specifications at depot quartermaster's offices in Philadelphia and New York and office of Mr. Canfield; former structure 229,000 cu. ft.; brick; tin, slate and copper roof; wood and alternate terra-concrete flooring; latter structure 266,900 cu. ft.; brick; slate and specification roof; terra-cotta and concrete flooring; hot-water heating in both buildings from central plant; lighting from central plant; cost of buildings \$60,000 and \$75,000, respectively; Hugh N. McAuley, Archt., Woodward Bldg., Washington.  
 Ga., Atlanta.—Grady Hospital Trustees, R. J. Lowry, Pres., receive bids through Eugene C. Wachendorf, Archt., 827 Empire Bldg., Atlanta, until June 27 to erect reinforced concrete skeleton frame and other work in conjunction therewith for nurses' home, Grady Hospital; plans by Alexander Blair and Eugene C. Wachendorf, Asso. Archts., Atlanta, on file at Mr. Wachendorf's office as above.  
 La., Shreveport.—A. J. Armstrong, Shreveport, is preparing plans for hospital; 2 stories; frame; architect will purchase materials to include shingles, wood flooring, skylight, paint, varnish, plain sheet glass, electric fixtures, water tank, steam heating plant, dumb waiter, hand elevator, 5x7 ft., etc.  
 Md., Baltimore.—Hahnemann General Hospital is having plans prepared by Walter M. Gieske, 65 Gunther Bldg., Baltimore, for \$200,000 building on Mount St.; 200x40 ft.; ward to accommodate 200 patients; 2 or more operating-rooms; other details not available. (Previously noted.)  
 Okla., Darlington.—A. F. & A. M. plan to erect hospital; cost \$4000.

Tex., Gainesville.—Gainesville Sanitarium is reported to erect several additions and annexes.  
 W. Va., Clarksburg.—Mason Hospital has plans by E. F. Stevens, 9 Park St., Boston, Mass., for hospital. (Lately noted.)  
 W. Va., Glendale.—Rev. B. M. Spurr, Moundsville, W. Va., will erect nurses' home; 116x40 ft.; hollow tile and stucco; tile roof; wood floors; Warren Webster modulating steam-heating system; electric lights (on premises); cost \$22,000; M. F. Giesey, Archt., Wheeling; bids opened June 14. Address Dr. Spurr. (Lately noted.)  
 W. Va., Welch.—State Board of Control, J. S. Lakin, Pres., receives bids until June 28 for labor and material to erect ward addition to Welch Hospital No. 1; wing, 22.10x40.6 ft.; hallway, 7x40 ft.; 1 story; ordinary brick construction; slate roof; plumbing, heating, electric wiring; plans and specifications by H. Rus Warne, Charleston, W. Va., at office of Board.  
 HOTELS  
 Ark., Siloam Springs.—Lakeside Hotel plans to erect 1-story addition.  
 Fla., Avon Park.—Bonfoey & Elliott, Tampa, are preparing plans for hotel; 2 stories and basement; frame; cost \$30,000.  
 Fla., Pensacola.—W. C. Frederic, Thiesen Bldg., Pensacola, prepared plans for hotel building; 6 stories; 75 rooms; 2 stores and lobby on first floor; tapestry brick; stone front; gravel roof; wire glass windows; steam heat; vacuum cleaning system; elevators.  
 Fla., Tampa.—A. D. Johnston is having plans prepared by Bonfoey & Elliott, Tampa, for store and hotel building on Twigg St.; 60x50 ft.; 3 stories; cost \$17,000.  
 Ga., Columbus.—Waverly Hotel Co. will expend several thousand dollars to improve Waverly Hotel; plans include private dining and ball rooms, improvements to baths, installation of marble fixtures and walnut-coring, improvements to exterior, etc.  
 Mo., Jefferson City.—Miller & Chaffee, Jefferson City, are reported preparing plans for hotel; 7 stories; cost \$175,000; Howard Cook and D. G. Aronberg are interested.  
 N. C., Asheville.—Grove Park Inn, Fred L. Seely, Mgr., will improve building as follows: Erect fireproof garage and machine shop; dining-room for colored help; kitchen; extend present kitchen 60 ft.; provide children's dining-room; let contract to R. E. Pilcher, Louisville, Ky., to enlarge pipe organ, etc.  
 N. C., Icard.—J. A. Goode, Rutherford College, N. C., contemplates erecting hotel.  
 Okla., Blackwell.—E. J. Bacher will erect brick hotel building.  
 Okla., Chickasha.—Moon & Touchton, Gainesville, Tex., will remodel and erect additional story to Early Hotel; 90 rooms, each to be supplied with hot and cold water; telephone service; private baths; elevator; P. C. Remier and J. W. Burchfield, Mgrs.  
 Okla., Drumright.—Drumright Construction Co. is reported to erect hotel; cost about \$120,000; completion by Oct. 1.  
 Okla., Tulsa.—E. L. Fox will erect hotel; 146x50 ft.; 3 stories; brick; cost \$50,000; construction under supervision of owner.  
 MISCELLANEOUS  
 Fla., Miami.—Clubhouse.—Cay Coconalobus Club, Carl G. Fisher, Jas. H. Snowden and others, is receiving bids to erect clubhouse on Adam Key; two stories; rustic style; frame and stone; thatched shingle roof; clubroom, 25x50 ft.; 2 porches, 12x50 ft.; 8 rooms on second floor; lavatories in each; 2 bathrooms; filtering system; electricity generated on key to furnish light and power; cold-storage plant, capacity 1000 lbs. ice; also erect machinery building and servants' house; will dig 50,000-gal. cistern; cost \$10,000.  
 Fla., St. Petersburg.—Clubhouse.—St. Petersburg Yacht Club has plans by Henry Dupont, St. Petersburg, for clubhouse; 45x100 ft.; tile and reinforced concrete; tile roof; concrete, tile and wood floors; electric lights; cost \$15,000; date opening bids not set. Lew B. Brown, Chrmn., care of St. Petersburg Independent.  
 Fla., Tampa.—Clubhouse.—Palma Ceia Golf Club, Jas. F. Taylor, Secy., has plans by Fred J. James, Tampa, for clubhouse; 90x65 ft.; brick and stucco, with gables shingled; tile or slate roof; cement and wood floors; city lighting; cost \$10,000; completion about Sept. 1. (Lately noted.)  
 Md., Baltimore.—Museum.—Baltimore Museum inceptd. with Blanchard Randall, Pres., 200 Chamber of Commerce; Dr. A. B. L. Dohme, Pratt and Howard Sts., and Dr.

Hugh Young, Professional Bldg., V-Ps., all of Baltimore; Henry H. Wiegand, 222 Roland Ave., Secy.; B. Howell Griswold, Edgevale Rd. and Harvest lane, Treas., both of Roland Park; will erect municipal museum at 1122-24 N. Charles St. for industrial and fine arts exhibitions; site 40x150 ft.  
 Miss., Biloxi.—Clubhouse.—Biloxi Yacht Club has plans by C. A. Thompson and Byrd Enoch, Biloxi, for clubhouse to cost \$3500; 50x50 ft.; frame; composition shingle roof; wood floors; will let contract to C. A. Thompson. Address owner.  
 Mo., St. Louis.—Offices, etc.—Mount Sinai Cemetery Assn., Sol Boehm, Pres., has plans by Will Levy, St. Louis, for House of Comfort, to contain parlor, office rooms, fire-proof vaults, etc.; cost \$12,000.  
 N. C., Charlotte.—Home.—Alexander Home has plans by C. C. Hook, Charlotte, for \$25,000 building; 2 stories; brick; dining-room, 27x41 ft.; front and rear porches; 2 dormitories, capacity for 10 children each; infirmary, etc. (Lately noted.)  
 Tex., Fort Worth.—Clubhouse.—B. G. Leake, First National Bank Bldg., Fort Worth, is preparing plans for addition to clubhouse.  
 Tex., Waco.—Clubhouse.—Country Club plans to enlarge and improve clubhouse.  
 Va., Suffolk.—Clubhouse.—Country Club will erect clubhouse near Smith and Cohoon creeks; J. H. Corbett is interested.  
 RAILWAY STATIONS, SHEDS, ETC.  
 La., Alexandria.—Alexandria Municipal Ry. will erect carhouse at 10th and Lee Sts.; 53x108 ft.; brick.  
 N. C., Asheville.—Norfolk Southern Ry., F. L. Nicholson, Chf. Engr., Norfolk, Va., will erect freight warehouse.  
 Okla., Muskogee.—Midland Valley R. R., C. Kaighn, Chf. Engr., will erect \$20,000 depot and office building.  
 Tex., Amarillo.—Chicago, Iron Mountain & Gulf Ry., A. B. Warner, Ch. Engr., Fort Worth, has plans by A. T. Hawk, Room 813 La Salle Station, Chicago, for depot and division office building; 2 stories; 30x100 ft.; frame; tile roof; wood floors; repair present hot-water heating plant; cost \$10,000; construction probably by company's force.  
 Tex., Sweetwater.—Texas & Pacific Ry., C. H. Chamberlain, Ch. Engr., Dallas, will expend \$60,000 to improve passenger station and erect 2-story freight depot.  
 Va., Radford.—Radford-Willis Southern Ry., T. W. Simpson, Ch. Engr., is reported to erect station.  
 W. Va., Parkersburg.—Baltimore & Ohio R. R., F. L. Stuart, Ch. Engr., Baltimore, will erect freight station, transfer platform, team tracks and offices for division freight agency and agency force; buildings 500x35 ft.; office entrance by means of bridge across driveway which is 12 ft. lower than street; platforms 8 and 15 ft. wide extending entire length of building; install tracks with capacity of 60 cars, etc.; cost \$300,000.  
 SCHOOLS  
 Ala., Jacksonville.—City votes July 10 on \$2500 bonds to supplement \$10,000 lately voted to erect school. Address The Mayor.  
 Ala., Florence.—Board of Education is having plans prepared by Richard G. Deacon and Knight & Quayle, consulting engineers, both of Chattanooga, Tenn., for high-school building; 6 classrooms and auditorium; special rooms for vocational training and domestic science; cost \$42,000. (Lately noted to have voted \$50,000 bonds.)  
 Ala., Russellville.—Sloss-Sheffield Steel & Iron Co., Birmingham, will erect school. (See Dwellings, Ala., Birmingham.)  
 Ark., Wabbaseka.—Board of Education, A. L. Lowe, County Supt., Pine Bluff, Ark., is having plans prepared to remodel and erect 2-room addition to school building; cost \$4000; W. O. Womble, principal.  
 Fla., Cocoa.—Trustees have plans by Mark & Sheftall, Jacksonville, for high and grammar school building; reinforced concrete; 11 class rooms, laboratory, study hall, library, rooms for teachers and principal, 2 domestic science rooms, auditorium; cost \$40,000.  
 Fla., Mims.—Board of Public Instruction will erect 20x30-ft. addition to negro school; bids opened June 5; Edwin E. Macy, Secy.; W. H. Ford, Titusville, Fla., is interested.  
 Fla., Winter Park.—School Board is having plans prepared by Bonfoey & Elliott, Tampa, for grade and high-school building; cost \$30,000. (Noted in May.)  
 Ga., Martin.—City votes July 12 on \$10,000 school bonds; Jas. H. Crawford, Mayor.  
 Ga., Manchester.—School Board is having plans prepared by Dallis-Roberts Co., At-

lanta, to erect annex to school building; 2 stories and basement; 8 class rooms; domestic science study hall; room for manual training; furnace; cost \$10,000; contract soon let.

Ga., Tallapoosa.—City has plans by Morris & Morris, Atlanta, National Bank Bldg., Atlanta, for school building; 57x167 ft.; brick; 12 class rooms and auditorium; seating capacity 700; steam blast heating system; completion by Sept. 10; will soon let contract. (Lately noted.)

Ky., Madisonville.—County School Board is receiving bids to erect schools in Dist. No. 66, Jennings; No. 79, Kirkwood; No. 96, Jewel City; plans and specifications at office Mr. Ray, Supt. Board of Education.

Ky., Paducah.—County Board of Education, Geo. L. Alliston, Secy., has plans by Harry F. Jamieson, of Sherrill-Russell Lumber Co., Paducah, for school building; will let contract soon.

Ky., Smithland.—Livingston County School Board will erect high school; cost \$5000.

La., Baton Rouge.—Parish School Board has plans by Ben. J. Goodman, Baton Rouge, for 3 school buildings; city recently voted \$125,000 bonds for school improvements; bids opened June 15.

Md., Govans.—Baltimore County School Board, Towson, Md., will erect 4-room additions to Govans and Morrell Park schools.

Md., Linthicum Heights.—Seth H. Linthicum, Chrmn. Building Comm., care County School Supt., Anne Arundel County, Annapolis, Md., receives bids until June 23 for Linthicum Heights Shipley Public School; plans and specifications at office of Mr. Linthicum, Linthicum Heights, or 217 St. Paul St., Baltimore.

Md., St. Mary's City.—Trustees, St. Mary's Female Seminary receive bids until June 25 to erect addition; plans and specifications at office Leonardtown Bank, Leonardtown, Md.; Giles F. Dyer, Chrmn., Building Com.

Miss., D'Lo.—School Board has plans by Raymond B. Spencer, Jackson, Miss., for school; will let contract about June 30 to erect ordinary construction; composition roof; steam heat; electric wiring; cost \$18,000, exclusive of equipment. (Lately noted.)

Miss., Magee.—School Board has plans by Raymond B. Spencer, Jackson, Miss., and will let contract about June 20 to erect school; ordinary construction; composition roof; steam heat; electric wiring; well, pump and tank; cost \$11,000, exclusive of equipment. (Lately noted.)

Miss., Meridian.—Poplar Springs Dist. votes June 26 on \$12,500 school bonds. Address Dist. School Trustees. (Previously noted.)

Miss., Mount Bayou.—Mound Bayou College, Jas. T. Simpson, Prest., has plans by W. A. Rayfield & Co., Birmingham, Ala., for college building to contain classrooms, assembly room and administrative offices; brick; slate roof; cost \$10,000; other details not decided.

Miss., Sanford.—Sanford Consolidated School Dist. plans to issue \$15,000 bonds to erect school. Address Dist. School Trustees.

Miss., Seminary.—Seminary School Dist. plans to issue \$20,000 school bonds. Address Dist. School Trustees.

Mo., Center.—Center School Dist. voted \$12,400 school bonds. Address Dist. School Trustees.

Mo., Fulton.—William Woods College will expend \$10,000 to improve building; also expend \$60,000 to erect academy and conservatory.

Mo., Madison.—City voted \$16,000 school bonds. Address School Trustees.

Mo., Richards.—City has plans by J. H. Felt & Co., Kansas City, for school; plans opened June 12.

Mo., St. Louis.—Polish Sisters of Perpetual Help, 340 Gasconade street, will erect addition to convent; 2 stories; 100x49 ft.; cost \$35,000.

N. C., Asheville.—Board of Education will soon receive bids and probably let contract about July 1 to erect high school; bids will be asked for on building complete, on building with auditorium omitted, but gymnasium left, and on building with gymnasium-auditorium wing omitted; plans by W. H. Lord, Asheville. (Previously noted.)

N. C., Bailey.—Mount Pleasant School Dist. No. 1 votes July 11 on \$3000 school bonds; J. B. Boddie, Clerk Bd. Commrs. Nash County, Nashville, N. C.

N. C., Charlotte.—Dewees Dist. No. 1 will issue \$15,000 bonds to erect school; J. Arthur Henderson, Chrmn., County Board of Education.

N. C., Davidson.—Davidson College will erect gymnasium on campus; brick; about 80x120 ft.; cost \$25,000; architect not selected. (Lately noted under N. C., Charlotte.)

N. C., Durham.—National Training School, J. E. Shepard, Prest., has plans by W. L. Brewer, Greensboro, N. C., to remodel lately noted building for classrooms and dining room; brick and wood; tile or cement floors; cost \$4000; erect building in spring. Address owner. (See Machinery wanted—Heating Plant.)

N. C., Greensboro.—Bessemer School Dist. will vote on \$10,000 bonds for schools. Address Dist. School Trustees.

N. C., Greensboro.—South Buffalo School Dist. voted \$10,000 bonds to erect school building. Address Dist. School Trustees. (Lately noted.)

N. C., Newton.—Trustees are having plans prepared by Q. E. Herman, Hickory, for repairs to school, including steam heat, plumbing, etc.

N. C., Raleigh.—Board of Education of Wake County lets contracts in July to erect 4 two-room schools; 2 in Neuse River township; 1 in Swift Creek township and 1 in Barton's Creek township.

Okla., Ardmore.—School Board is having plans prepared by J. B. White, Ardmore, for 4 ward schools; cost \$40,000.

Okla., Braggs.—School Board of District No. 46 is having plans prepared by Bramblet & Huseman, 414 Oklahoma Bldg., Oklahoma City, for 2-story brick addition to school building; cost \$900; E. M. Sharp, Clerk, will soon receive bids.

Okla., Chickasha.—Mrs. P. K. Higgins, Liberty, Mo., will erect 2 frame residence buildings near Oklahoma College for Women; one to contain dining-room with accommodations for 50 and sleeping apartments for 32; other for dormitory to contain rooms for 18 students.

Okla., Dewey.—School Board lets contract July 1 to erect annex to school; plans by Hawk & Parr, Oklahoma City, call for 2-story and basement building; fireproof; auditorium, manual training, domestic science rooms, gymnasium, etc.

Okla., Kenton.—School Board plans to erect school building.

Okla., Lindsay.—School Board has plans by Hawk & Parr, Oklahoma City, for school; 2 stories; brick and stone; steam heat; cost \$12,000.

Okla., Mulhall.—School Board has plans by Hawk & Parr, Oklahoma City, for school; 2 stories and basement; 46x76 ft.; cost \$12,000; bids opened June 1.

Okla., Ninkkah.—School Board, Dist. No. 51, W. A. Woods, Clerk, is having plans prepared by Bramblet & Huseman, 414 Oklahoma Bldg., Oklahoma City, for 2-story addition to building; will soon receive bids. (Previously noted.)

Okla., Pecosset.—School Board has plans by Hawk & Parr, Oklahoma City, for school; 2 stories; ordinary construction; face brick; steam heat; cost \$12,000.

Okla., Preston.—School Board is having plans prepared by Hawk & Parr, Oklahoma City, for 2-story addition to building; cost \$500; bids opened June 10.

Okla., Ralston.—School Board is having plans prepared by Hawk & Parr, Oklahoma City, for 2-story and basement school building; brick and stone; pitch and gravel roof; steam heat; cost \$19,000; contract let June 10.

Okla., Sapula.—City is reported to have voted school bonds. Address The Mayor. (Lately noted.)

Okla., Tishoningo.—City voted \$12,000 bonds to erect addition to high school and install heating plants. Address The Mayor.

Tenn., Union City.—City votes July 11 on \$25,000 school bonds; J. A. Coble, Mayor.

Okla., Wapette.—School Board is having plans prepared by Bramblet & Huseman, Oklahoma City, to erect school building; 2 stories; brick; cost \$6000; will soon invite bids.

S. C., Anderson.—Airy Springs Dist. voted \$3500 bonds to erect school building. Address School Board.

S. C., Chesterfield.—Board of Education, R. A. Rouse, County Supt., receives bids until June 17 to erect 2-story building at Cedar Creek; 1-story 2-room building at each of following places: Cross Roads, Harris Creek, Mangum, Ousleydale, and remodel White Plains School building.

S. C., Gaffney.—Trustees, M. A. Sarratt, Chrmn., School Dist. No. 10, have plans by F. H. & J. G. Cunningham, Greenville, S. C., for 10-room school; 117x55 ft.; brick; tar

and gravel roof; joist floor construction; fan blast heating system; cost \$30,000; bids opened June 16. (Previously noted.)

S. C., Greenwood.—Grendel Mill No. 1 will erect brick-veneer school; cost \$6000. Address Dist. School Trustees.

S. C., Greenwood.—Greenwood Cotton Mill will erect \$6000 brick school. Address Dist. School Trustees.

S. C., Mullins.—Trustees are having plans prepared by L. McD. Hicks and W. D. Harper, P. O. Box 33, Florence, S. C., for school; 2 stories and basement; brick, reinforced concrete, terra cotta and wood construction; tin roof; wood floors; probably steam heat; plans out for bids June 20.

S. C., Greenville.—Greenville Woman's College will enlarge and improve building; install swimming pool, etc.; also authorized Alumnae to convert Orr Building into Mary C. Judson Literary Hall.

S. C., Swansea.—Trustees, Jas. L. Haigler, Secy., receives bids until June 20 to erect school; brick; 6 rooms and auditorium; 70x65 ft.; tin roof; wood floors; plans and specifications at office J. H. Sams, Archt., Carolina National Bank Bldg., Columbia, S. C.

Tenn., Chattanooga.—City, H. D. Huffaker and Ed Herron, Commrs., is having plans prepared by Clarence T. Jones, Chattanooga, for Junior High School; 153x128 ft.; brick; tar and gravel roof; direct-indirect steam heat; bids opened in about 30 days. (Lately noted.)

Tenn., Clarksville.—Catholic congregation will erect \$29,000 school. Address The Pastor.

Tenn., Covington.—City has plans by R. H. Hunt, Chattanooga, for school; brick; metal roof; wood floors; steam heat; city lighting; cost \$12,000. Address Jas. J. Miller, Covington. (Lately noted.)

Tex., Alice.—J. T. Wright, Secy. Board of Trustees, Alice Independent School Dist., receives bids until June 17 to erect brick school; plans and specifications at office Guy Dale, Archt., Corpus Christi, Tex., or Mr. Wright.

Tex., Beaumont.—City will vote on \$300,000 bonds to purchase sites and erect additional schools. Address The Mayor.

Tex., Cement.—Trustees have plans by T. J. & J. O. Galbraith, Slaughter Bldg., Dallas, for school building; 3 stories; brick and tile; bids opened June 14. (Lately noted.)

Tex., Dallas.—Southern Methodist University Trustees will soon begin erection of proposed \$200,000 dormitory for girls; Dr. R. S. Hyer, Prest.

Tex., Denison.—City will vote on \$60,000 school bonds; B. L. Lindsay, Prest. School Board.

Tex., Ennis.—School Board is having plans prepared by Sanguinet & Staats, Fort Worth, for high school; brick, concrete and stone; cost \$75,000. (Lately noted.)

Tex., Fort Worth.—City votes July 6 on \$225,000 bonds for schools; will expend \$4000 for minor repairs to schools. Clay Johnson, Prest., School Board.

Tex., Galveston.—City will erect public school in Fifth Ward; cost \$28,000. Address The Mayor.

Tex., Lampasas.—Frank Baker, D. B. Black and H. E. Dickason, Bldg. Com., are receiving bids to erect high school; 2 stories; rock or brick; 5 rooms.

Tex., McAllen.—G. O. Allen Maule, McAllen, and M. L. Waller, Archt., Fort Worth, receive bids until June 24 to erect school; 2 stories; reinforced concrete and brick.

Tex., Royce City.—Royce Independent School Dist., M. M. McKee, Secy., has plans by T. J. & J. O. Galbraith, Dallas, for school building; 3 stories; brick and tile; bids opened June 15. (Lately noted.)

Tex., Sherman.—Austin College is reported to erect \$100,000 building; fireproof construction.

Tex., Trenton.—School Trustees will erect \$16,000 school building; brick construction.

Tex., Von Ormy.—School Dist. No. 27 plans to issue \$5000 bonds to erect school. Address Dist. School Trustees.

Va., Danville.—City voted \$75,000 school bonds; R. Brydon, Clerk.

Va., Weyers Cave.—Middle River Dist. School Board receives bids until June 18 to erect 8-room school; plans and specifications at office J. S. Hinegardner, Weyers Cave.

W. Va., Clarksburg.—Clark School Dist. plans to issue \$43,000 school bonds. Address Dist. School Trustees.

W. Va., Gap Mills.—Board of Education of Sweet Springs Dist. receives bids until June 17 to erect graded and high school at Gap

Mills; cost, including site, \$4250; G. W. Sayre, Sweet Springs, W. Va.; R. C. Apling, Gap Mills, and others, Commrs.

W. Va., Warwood.—Trustees have plans by James Sweeney of Meador & Sweeney, Huntington, W. Va., for \$20,000 school.

W. Va., West Liberty.—West Liberty School Dist. defeated \$35,000 school bonds; J. E. Emsley, Prest. Board of Education. (Lately noted.)

## STORES

Ala., Andalusia.—Sessoms Grocery Co. will rebuild block noted damaged by fire at loss of \$75,000 to \$100,000.

Ala., Attalla.—Geo. P. Walker is having plans prepared to remodel Keen Bldg. for drug store; cost \$5000 to \$7000; construction begins about Aug. 1.

Ala., Cardiff.—Sloss-Sheffield Steel & Iron Co., Birmingham, will erect commissary. (See Dwellings, Ala., Birmingham.)

Ala., Cullman.—Dr. W. J. Cottingham will erect 2-story brick business building.

Ala., Marion.—W. C. Curb will erect store and dwelling. (See Dwellings.)

Ark., Little Rock.—J. M. Moore will erect business building to be occupied by O. D. Tucker & Co.

Ark., Russellville.—Bonds & Hogins will erect brick business building.

Fla., Miami.—Hickson & Whitener will erect store, office and theater. (See Theaters.)

Fla., Miami.—A. H. Adams will erect business block; 2 stories and basement; 50x90 ft.; reinforced concrete; 4 stores on first floor; 4 apartments above; cost \$12,000.

Fla., Orlando.—Fraternal Building Assn. will erect store and lodge building. (See Assn. and Frat.)

Fla., Pensacola.—W. C. Frederic, Pensacola, prepared plans for hotel and store building. (See Hotels, Contracts Awarded.)

Fla., St. Petersburg.—Orange Lodge No. 35, I. O. O. F., begins construction about July 1 of store, lodge and auditorium building. (See Association and Fraternal.)

Fla., St. Petersburg.—Hewett & Chancellor will erect 33x40 ft. addition to concrete block building.

Fla., Tallahassee.—Levy Bros. will erect 2-story building.

Fla., Tampa.—A. D. Johnston is having plans prepared for store and hotel building. (See Hotels.)

Fla., Tampa.—A. F. Caltagessie is having plans prepared by A. L. Shaw, Tampa, for store and flat building; Barrett roof; stove and gas heat; cost \$5000.

Fla., West Palm Beach.—Palm Beach Mercantile Co., W. H. DaCamara, Gen'l mgr., is having plans prepared by George L. Pfeiffer, Demon City, Fla., for 3-story addition to building; probably hollow tile; plate-glass show windows for second story; office fixtures.

Ga., Augusta.—E. J. Erbeling will erect two 2-story brick stores, 555 Board St.; also 1-story brick store at 517 Broad St.; cost \$7000; construction by owner.

Ga., Augusta.—Real Estate Development Co. will erect 2-story building; 4 stores, theater and offices; fireproof; terra-cotta front; warehouse in rear with capacity 3300 bales; approximate cost of development, \$100,000; G. Lloyd Preacher, Archt., Augusta.

Ga., Mt. Vernon.—A. Seagall will erect store building; brick; plans by W. A. Chaffee, Savannah.

Ky., Louisville.—Atwood Realty Co. will expend \$6500 to remodel brick store, Third and Jefferson Sts.

Md., Beltsville.—Ulle Bros. will rebuild store building noted damaged by fire.

Mo., Joplin.—I. O. O. F. rejected bids to erect business and lodge building, and receives new bids until June 15. (See Association and Fraternal.)

Mo., Kansas City.—Louis Oppenstein is reported to erect business building; 4 or more stories.

Mo., St. Louis.—L. E. McQuay will erect business building at Locust St. and Channing Ave.

N. C., Hickory.—Elliott Building Co. will erect store building; 2 stories and basement store; 25x50 ft.; brick; electric lights.

N. C., Icard.—W. Y. Frazier will erect business building; 50x100 ft.

Okla., Sand Spring.—Lewis Marnett will erect 2-story brick business building.

Okla., Shawnee.—Dawson & Johnson will erect business building.

Okla., Tulsa.—Geo. Thesopolus is having plans prepared by D. Elchenfeld, First Na-



G. W. C. Apling, plans by, Hunt.

Liberty bonds; Education.

Co. will at loss of

is having Bldg. for construction

l & Iron mistry.

ham will

ect store

will erect by O. D.

gins will

ener will ee Thea-

ect busi-

nt; \$500 on first

000.

g Assn. (See

Pensa-

warded.)

dge No. n about m build-

(L.)

ancellor concrete

ll erect

having

liding.

having

upa, for

stove

Beach

Gen'l

George

3-story

ow tile;

story;

ll erect

nt; also

cost

omptment

stores,

ra-cotta

ity 330

ment,

Augusta,

ll erect

l. Chaf-

o. will

Third

rebuild

bids to

and re-

Asso-

is re-

r more

erect

erect

tional Bank Bldg., Tulsa, for addition to building for Lyons Shoe Store; 25x35 ft.; basement; brick and concrete; composition roof; wood floors; other details not determined. (Lately noted.)

Okla., Wewoka.—D. Campbell plans to erect brick business building.

Okla., Waukomis.—A. F. and A. M. are reported to erect 2-story brick business and lodge building.

Tenn., Lebanon.—F. J. Sanders will erect 5 buildings; 2 stories; 22½x100 ft.; first floor stores; upper floors apartments or offices; ordinary construction; gray brick; tin roof; steam heat; electric wiring; construction begins in August; cost \$15,000 to \$20,000.

Tex., Beaumont.—White House Dry Goods Co. will remodel building; 40x110 ft.; arcade front; white-enamel metal ceiling; lighting and plumbing fixtures; completion in about 90 days.

Tex., Bryan.—Eugene Edge will erect 3-story building; elevator.

Tex., Corsicana.—Mrs. C. W. Jester will erect 2 store buildings; plate-glass fronts, etc.

Tex., Dallas.—A. W. Campbell will repair 3-story and basement building on Murphy and Elm Sts.; 72x50 ft.; install elevators, steam-heating system, etc.; completion about Aug. 1.

Tex., Dallas.—E. P. Yates will erect one-story brick store building; cost \$5000.

Tex., El Paso.—West Texas Fuel Co. will erect building; cost \$6000.

Tex., El Paso.—J. I. Hewitt & Son will erect 2 buildings on Texas St.; cost \$9000.

Va., Richmond.—Mann S. Valentine estate will erect addition to 3-story brick store at 127 Hull St.; cost \$4500.

Va., Richmond.—M. C. Mann will erect 2-story brick store and residence building; cost \$9000.

## THEATERS

Fla., Miami.—New Hippodrome Theater is having plans prepared by J. S. Andrews, Miami, for theater; about 100x140 ft.; fireproof; cost about \$35,000.

Fla., Miami.—Hickson & Whitener will erect theater; about 100x150 ft.; 2 stories; auditorium to seat 1500 to 2000; plans include stores and offices; cost \$40,000.

Ga., Augusta.—Real Estate Development Co. will erect store, theater and office building. (See Stores.)

Md., Baltimore.—Casino Company has plans by A. Lowther Forrest, Law Bldg., Baltimore, to convert Casino on North Ave. into moving-picture theater; probably increase to 3 stories; half of first floor for moving-picture parlor; seating capacity, 1200; other half for stores; portion of upper floors for dining-rooms, bowling alleys, etc.; cost about \$35,000. (Lately noted.)

Tenn., Chattanooga.—Signal Amusement Co. will expend \$50,000 to convert C. D. Mitchell Bldg. into theater; 3 stories; front of colored tile and terra-cotta, with electric plate-glass reflector bulletin, 12x18 ft.; stage 60x48 ft., with 50-ft. shadow box; seating capacity, 1500 on lower floor; balcony on each side of stage; musical instrument of 2000 combination tone pipes; Clarence T. Jones, Archt., Chattanooga; completion by Nov. 1. (Lately noted.)

Tenn., Maryville.—F. Henry has plans by L. C. Waters, Knoxville, for theater; 42½x120 ft.; brick; gravel or asphalt Carey roofing; plain flooring; cost \$12,000; heating, \$1200; wiring, \$500; construction by owner. (Herman Reuter lately noted to erect theater.)

## WAREHOUSES

D. C., Washington.—W. S. Hoge & Bros., 915 Louisiana Ave. N. W., will remodel warehouse; cost \$7500.

Ga., Augusta.—Real Estate Development Co. will erect warehouse. (See Stores.)

Ga., Columbus.—National Biscuit Co. is having plans prepared by Charles Hickman, Columbus, for warehouse and office; 40x120 ft.; cost \$7000.

Ga., Tifton.—Central Grocery Co. will erect warehouse; brick and steel; 1 story and basement; 235x75 ft.

Md., Baltimore.—Gomprecht & Benesch are having plans prepared by Otto G. Simonson, Maryland Casualty Tower Bldg., Baltimore, for warehouse at Mulberry and Jasper Sts.; cost \$50,000.

S. C., Spartanburg.—Standard Oil Co. will erect warehouse; 30x60 ft.; will also erect stable.

Va., Norfolk.—Security Storage & Safe Deposit Co. will erect warehouse; fireproof; cost \$75,000; Neff & Thompson, Archts., Norfolk.

## BUILDING CONTRACTS AWARDED

### APARTMENT-HOUSES

Ala., Montgomery.—Steiner & Lobman let contract to James Hodgson, Montgomery, to erect apartment-house on S. Hull St.; 2 apartments; cost \$10,000.

Ala., Montgomery.—Steiner & Lobman let contract to James Hodgson, Montgomery, to erect apartment-house; 2 stories; cost about \$10,000.

D. C., Washington.—John W. Brawner let contract to Peter Fersinger, 1 N. St. N. W., Washington, to erect apartment-house on B St. between 2d and 3d Sts. N. E.; 45x104 ft.; ordinary construction; slag roof; oak and terrazzo floors; 1-pipe gravity steam-heating system; electric lights; A. B. Mullett & Co., Archts., Union Trust Bldg., Washington. (Lately noted.)

Ga., Atlanta.—T. E. Mauldin let contract to Fulton County Home Builders, Atlanta, to erect apartment-house; 2 stories; frame; cost \$11,500.

Ga., Savannah.—C. Lamas let contract to W. A. Chaffee, Savannah, to remodel building for apartment-house; tile kitchens and bathrooms, etc.; cost \$4000.

Md., Hagerstown.—J. V. Jamison, Sr., let contract to Consolidated Engineering Co., Calvert Bldg., Baltimore, Md., to erect apartment-house; 3 stories; brick; cost \$30,000.

Mo., St. Louis.—George Necker let contract to Hall-Mackey Co., St. Louis, to erect 2-story tenement; cost \$5000.

S. C., Greenville.—Raven I. McDavid, E. North St., let contract to Charles Kloecker, 105 East Ave., Greenville, to erect apartment-house; 60x78 ft.; 2 stories; frame and brick veneer; tar and gravel roof; wood floors; steam heat; electric lights; cement sidewalks cost \$15,000; Martin & Ward, Architects, Greenville. (Lately noted.)

Tex., Houston.—C. Mendelssohn let contract to W. L. Pierson & Co., Houston, to erect apartment-house at Clay and Crawford Sts.; 3 stories and basement; 40x55 ft.; brick and hollow tile; three 5-room suites on each floor; composition roof; frame floors; steam heat; cost \$20,000; Endress & Watkins, Archts., 1106 Scanlon Bldg., Houston.

Va., Norfolk.—H. I. Britton let contract to John W. Saunders, Norfolk, to erect two 2-family frame apartment-houses; cost \$6500.

Va., Norfolk.—Fred Greenwood let contract to John W. Saunders, Norfolk, to erect 2-family apartment-house; cost \$7513.

Va., Norfolk.—Atkinson Building Co. let contract to erect apartment and business building. (See Stores.)

### ASSOCIATION AND FRATERNAL

Md., Baltimore.—Phi Chi Medical Fraternity of Johns Hopkins Hospital let contract to Gladfelter & Chambers, 729 Roland Ave., Baltimore, to erect 5-story fraternity-house; cost \$50,000; Parker, Thomas & Rice, Archts., 1109-11 Union Trust Bldg., Baltimore. (Lately noted under Apartment-houses.)

### BANK AND OFFICE

Fla., Miami.—Fidelity Bank & Trust Co. let contract to St. John Construction Co., Miami, to remodel Beers Bldg.; cost \$50,000. (Lately noted.)

Fla., Perry.—First National Bank let contract to Florida Engineering & Construction Co., Jacksonville, to erect bank and office building; 2 stories; 43x60 ft.; brick and concrete; Johns-Manville or similar roofing; wood and tile floors; cost \$12,000; W. H. Smith, Archt., Perry. (Lately noted.)

Ga., Newnan.—Newnan Cotton Mills (M. F. Cole) let contract to McElroy & Talbert to erect office building; 40x70 ft.; brick veneer; tile roof; mill floor construction; cost \$9000; heating, \$1000; Horace B. Hammond, Archt., 1102 Candler Bldg., Atlanta. (Lately noted.)

Miss., Shubuta.—Hand & Hand let contract to Hancock & McArthur, Meridian, Miss., to erect bank and office building.

Mo., Kansas City.—S. Z. Schutte let contract to erect store and bank building. (See Stores.)

Mo., Kennett.—Cotton Exchange Bank let contract at \$17,500 (exclusive of heating plant and interior finish of banking-room) to W. W. Taylor & Sons, Cape Girardeau, Mo., to erect bank building; 30x85 ft.; 2 stories; stone trimmings.

Mo., Kennett.—Cotton Exchange Bank let contract at \$17,000 to W. W. Taylor & Sons to erect bank building; separate bids for heating and interior finish to cost about \$8000 additional.

Okla., Tulsa.—Dr. Walter E. Wright, 312 Daniel Bldg., let contract to Tom O'Keefe, Tulsa, to erect laboratory and office building; 40x50 ft.; reinforced concrete and brick; Wesco roofing; concrete floors; cost \$25,000; hot-water heat, \$2000; Daniel E. Eichenfeld, Archt., Tulsa. Address owner. (Previously noted.)

S. C., Lancaster.—Farmers' Bank & Trust Co. let contract to Taylor & Waters, Columbia, S. C., to erect bank and office building; 2 stories; 24½x90 ft.; brick sidewalls; limestone front; tin roof; wood, tile and terrazzo floors; city light; cost \$12,000; hot-water heat, \$675; construction begins June 15; J. H. Sams, Archt., Columbia. Address W. H. Millen, Lancaster.

Tenn., Newport.—First National Bank has plans by Manley & Young, Knoxville, and let contract to erect bank and office building.

Tex., Ozona.—W. E. West let contract to erect store and office building. (See Stores.)

W. Va., Fairmont.—T. A. Deveny let contract to erect store, office and club building. (See Stores.)

### CHURCHES

Ala., Selma.—First Baptist Church has plans by and let contract to Winfried Ager, Selma, for addition to building; 40x40 ft.; Bedford stone; slate roof; cement and hardwood floors; steam heat; cost \$10,500.

Miss., Louisville.—Baptist Church, Rev. R. B. Gunter, pastor, let contract to H. P. Chastang to erect building; 74x74 ft.; ordinary construction; asbestos shingle roof; pine floors; hot-air heat; electric lights; cost \$14,000; construction begins July 1; J. E. Greene, Archt., 508 American Trust Bldg., Birmingham, Ala. Address The Pastor.

N. C., Washington.—Methodist Episcopal Church South let contract to C. C. Miller to erect Sunday-school building; brick; slate roof; wood floors; hot-air heat; electric lights; concrete sidewalks; cost \$10,000; C. E. Hartge, Archt., Raleigh, N. C.; J. F. Buckman, Chrmn. Building Commission. (Lately noted.)

Okla., Shamrock.—Baptist Church let contract to Ed. L. Quimby to erect building; Rev. Mr. Garrett, pastor. (Lately noted.)

S. C., Greenville.—Palmer Memorial Presbyterian Church let contract to M. W. Campbell, Greenville, to erect building and to L. B. Barr, Greenville, for heating and plumbing; plans by C. Gadsden Sayre, Anderson, S. C., call for structure about 60x110 ft.; main building brick; Sunday-school brick veneer; tin roof; bowl shape floor of rift pine; probably steam heat; cost \$15,000. (Lately noted.)

Tenn., Springfield.—Methodist Episcopal Church, South, let contract to D. M. Crawford Co., Memphis, to erect building; plans by Thos. W. Gardner, associated with Edward E. Dougherty, Nashville, call for brick building; steam heat; metal or slate roof; separate bids for heating and plumbing. (Lately noted.)

Tenn., Kingsport.—Baptist Church let contract to Jones & Boger, Box 143, Kingsport, to erect lately-noted building; 80x90 ft.; brick; slate roof; wood floors; cost \$14,000; heating, \$1000; lighting, \$500; D. R. Benson, Archt., Johnson City, Tenn. Address contractors. (See Machinery Wanted—Roofing; Heating; Plumbing.)

Tex., Granger.—Catholic Church let contract to Geo. Sexton, Waco, Tex., to erect building; cost \$32,000; E. H. Reed, Archt., Waco.

W. Va., Moundsville.—St. Xavier's Catholic Church let contract to Thomas Shrimp & Son, Moundsville, to erect building; plans by Meador & Sweeney, Huntington, W. Va., call for brick; limestone and terra-cotta trim; cost about \$100,000; will also erect rectory.

W. Va., Orlando.—Catholic Congregation, St. V. Moran, Chrmn. Building Commission, let contract to Buffington & Tulley, Burnsville, W. Va., to erect building; 30x60 ft.; stone, brick and wood; slate roof; wood floors; gas furnace; gas lighting; cost \$5000; Albert Breternitz, Archt., Clarksburg, W. Va. (Lately noted.)

### CITY AND COUNTY

Va., Richmond.—Armory.—City let contract to J. T. Nuckols, Richmond, for improvements to Howitzers' Armory; cost \$75,000; also plans other improvements; total cost \$113,972. (Lately noted.)

### COURTHOUSES

La., Many.—Police Jury of Sabine Parish let contract at \$84,525 to Caldwell Bros.,

Abbeville, La., to erect courthouse; fireproof; brick, steel and stone; electric lights, etc. (Lately noted.)

Miss., Gulfport.—Harrison County Commrs. let contract at about \$100,000 to Dabbs & Wetmore, Meridian, to erect courthouse, exclusive of mechanical work; mat brick with terra-cotta or stone trimmings (optional with contractor) for exterior walls; fireproof; tile and reinforced concrete floors; hollow tile partitions; structural steel columns and wall-bearing beams; construction begins in 30 to 60 days; N. W. Overstreet, Archt., Jackson, Miss. (Lately noted.)

### DWELLINGS

Ala., Piedmont.—J. L. Adderhold has plans by and let contract to L. T. Morgan to erect 6-room residence and two 4-room residences; wood; shingle roof; wood and concrete floors; electric lights; open grates.

D. C., Washington.—Luther W. Asche-meyer has plans by Charles A. Neill and let contract to J. B. Higden, 2806 Bladenburg Rd. N. E., Washington, to erect residence; cost \$3500.

Ga., Augusta.—D. B. Printup let contract to Rowland & Branch, Augusta, to erect residence; 6 rooms; cost \$5000.

Ga., Cartersville.—Mrs. O. C. Omer will erect 2-story 9-room residence; J. H. McElreath, contractor, Cartersville; frame; pine shingle roof; pine floors; cost \$3500; hot-air heat, \$250; plans by managers of Park Hotel.

Md., Baltimore.—J. S. Detrick let contract to Cowan Building Co., 106 W. Madison St., Baltimore, to erect 2½-story brick residence on Wendover Rd.; cost \$15,000.

Md., Baltimore.—Acme Building Co., 512 Equitable Bldg., let contract to Louis Pincus, 2147 Eagle St., Baltimore, to erect 8 dwellings, 22x34 ft., and 2 dwellings, 15x52 ft., on Reisterstown Rd. and Springhill Ave.; group includes store and dwelling; brick; slate roof; hardwood floors; steam heat; gas and electric lights; cost \$1500 each; Stanislaus Russell, Archt., 2900 Clifton Ave., Baltimore. Address owner. (Lately noted.)

Md., Brooklyn.—E. Wilbur Stoll let contract to Seward Coulbourn, Brooklyn, to erect lately-noted residence at 5th Ave. and Morgan Rd.; 41x26 ft.; frame; shingle roof; hardwood floors first story; electric lights; cost \$3000; hot-water heat, \$400; Walter J. Keith, Archt., Minneapolis, Minn. (See Machinery Wanted—Heating Plant; Electrical Work; Vacuum Cleaner.)

Mo., Kansas City.—Louise Rieger let contract to Dwyer & Eyesell, Brent Bldg., Kansas City, to erect residence and music studio; 36x42 ft.; stucco; shingle roof; oak and maple floors; electric lights; studio proper 18x32 ft., open to ceiling 18 ft., showing rafters; cost \$8000; Dunham vacuum vapor heating system, \$625; Root & Sieman, Architects, Scarritt Bldg., Kansas City. (Lately noted.)

N. C., Durham.—Dr. L. S. Booker let contract to I. G. Lawrence, Durham, to erect residence; 2 stories; 9 rooms; brick-veneer; asbestos roof; hardwood floors; cost \$8000; heating plant, \$500; lighting, \$200. (See Machinery Wanted—Heating; Boilers; Electric Equipment.)

N. C., Greensboro.—W. L. Carter let contract to W. C. Bain, Greensboro, to erect residence; 2 stories; tile construction; asbestos roof; 8 rooms; cost \$15,000.

N. C., Winston-Salem.—Eugene LeGrand let contract to G. E. Miller, Winston-Salem, to erect residence.

Okla., Ponca City.—E. W. Marland let contract to O. F. Keck, Ponca City, to erect residence; 42x83 ft.; 2 stories and basement; stucco and alomite stone; basement of brick and hollow tile; tile roof; swimming-pool, garage, etc.; plans by Layton & Smith, Oklahoma City. (Lately noted.)

Okla., Shawnee.—A. J. Fluke let contract to G. P. Carr, Shawnee, to erect residence; electric lights; cost \$6000.

Okla., Tulsa.—L. N. Ewing will erect frame residence; cost \$3000; 34x34 ft.; frame; shingle roof; double floors with oak finish; R. H. Ruggles, Archt.; R. J. Smith, Contr.; both of Tulsa.

S. C., Campobello.—J. M. Jackson let contract to Bryson & Webber, Spartanburg, S. C., to erect residence; 11 rooms; brick veneer; tile roof; oak floors; cost \$12,000; S. P. Tinsley, Archt., Spartanburg.

S. C., Enoree.—Enoree Mfg. Co. let contract to Chas. L. Rounds, Clinton, S. C., to erect mill houses and for repairs.

S. C., Greenville.—F. E. Schroeder let contract to Chas. Kloecker, Greenville, to erect

residence; 60x60 ft.; frame; shingle roof; wood floors; hot-air heat; cost \$6000; Martin & Ward, Architects, Greenville. (Lately noted.)

Tenn., Chattanooga.—R. C. Jones let contract at \$12,900 to T. S. Moudy & Co., Chattanooga, to erect residence; 2 stories and basement; 12 rooms; brick exterior and stud interior walls; tile roof with decks of tin; wood-joint floor construction; finish floors of oak; Honeywell hot-water heating system; W. H. Sears, Archt., 821 James Bldg., Chattanooga. (Lately noted.)

Tenn., Knoxville.—W. T. Claiborne let contract to J. F. Claiborne, Knoxville, to erect residence; 2 stories; brick veneer; steam heat; slate roof; hardwood and tile floors; cost \$8000; Barber & McMurray, Architects, Knoxville.

Tex., Bryan.—J. W. Hunnicutt let contract to Mr. Nash to erect 6-room bungalow; garage and outhouses.

Tex., Dallas.—A. T. Lloyd of Lloyd Advertising Agency, let contract to H. J. Curtis, 1209 Main St., Dallas, to erect residence; material to include brick, terra-cotta, tile, marble mosaic work, art glass, tile roof; hot-water heating system; electric wiring; vacuum-cleaning system; cost \$75,000; Hubbell & Green, Archts., Texas Bldg., Dallas.

Tex., Fort Worth.—C. S. Weaver let contract to Goddard & Barron, Fort Worth, to erect 5 one-story wooden residences; cost \$3000.

Va., Covington.—Paul Lacy let contract to C. B. Ergenbright, Covington, to erect residence; 37x34 ft.; brick veneer and face brick; slate roof; hardwood floors; electric lights; cement sidewalks; cost \$3500; owner will install heating plant. (Lately noted.)

Va., Norfolk.—I. J. Bounds let contract to Griffin Bros. to erect residence; cost \$4000.

Va., Norfolk.—Norfolk Home Building Corporation let contract to A. F. Smith, Norfolk, to erect two 3-story frame residences; cost \$4000.

Va., Petersburg.—Atlantic Coast Realty Co. let contract to Bishop & Greer, Petersburg, to erect 15 dwellings in Walnut Hill. Address Fred A. Bishop.

Va., Portsmouth.—West Haven Annex Corp. let contract to Jones & Watkins, Portsmouth, to erect 5 residences in West-haven; 2 stories; 7 rooms; cost \$10,000.

W. Va., Huntington.—C. W. Phellis let contract to C. Harrison Smith, Huntington, to erect residence; 2 stories; brick; 14 rooms; stone trim; tile roof; wood floors; hot-water heat; cost \$25,000; E. N. Alger, Archt., Huntington. Address Contr. (See Machinery Wanted—Mill Work.)

## GOVERNMENT AND STATE

Mo., Jefferson City.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Act. Supvr. Archt., Washington, D. C., let contract at \$4800 to Capital City Planing Mills, Jefferson City, Mo., for repairs, painting, etc., to postoffice.

## HOSPITALS, SANITARiums, ETC.

Ky., Lakeland.—State Board of Control for Charitable Institutions let contract at \$24,000 to L. W. Hancock, Brook & Bloom Sts., Louisville, to erect kitchen and bakery building at Central State Hospital; D. X. Murphy & Bro., Archts., Louisville. (Noted in May.)

N. C., Winston-Salem.—County Commrs. let contract to Fogle Bros. Co., Winston-Salem, at \$453 to erect tuberculosis sanatorium; plans by Northup & O'Brien, Winston-Salem, call for central building and 2 wings; 25x40 ft.; accommodate 24 patients; ordinary construction; stained shingle roof. (Lately noted.)

## HOTELS

Ark., Fort Smith.—Haglin Hotel let contract to improve building; enlarge lobby; install 21 baths, etc.

Fla., West Palm Beach.—Hotel Hibiscus let contract to A. Nelson, West Palm Beach, to erect 1-story and 16-ft. addition to front of building; cost \$8000. (Lately noted.)

Ga., Columbus.—Charles Loridans, Atlanta, let contract to Southern Ferro Concrete Co., Atlanta, to erect addition to Ralston Hotel; 3 stories; foundation to permit additional stories later; lower floor for stores; cost \$50,000; completion by Oct. 1. (Lately noted.)

Mo., Kansas City.—F. N. Norton let contract to Reburn-Laird Construction Co., 608 Bryant Bldg., Kansas City, to erect hotel at 3517 Main St.; 80x124 ft.; brick, terra-cotta, cut stone and reinforced concrete; gravel roof; hardwood floors; city electric lights; 2 electric elevators; cost \$125,000; vapor vacuum steam heat, \$7000;

Reul A. Curtis, Archt., 535 Reserve Bank Bldg., Kansas City; address contractors; construction begun. (Previously noted.)

## MISCELLANEOUS

Ala., Spring Hill.—Clubhouse.—Mobile Country Club let contract to E. J. Raub & Co., Mobile, to erect clubhouse; 3 stories; bowling alleys, lockers, etc.; cost \$28,000; Geo. B. Rodgers, Archt., Mobile, Ala. (Lately noted.)

Fla., Pass-a-Grille.—Clubhouse.—Pass-a-Grille Yacht and Anglers' Club let contract to W. C. Henry, Pass-a-Grille, to erect clubhouse; plans by Ferndon & Feltham, Pass-a-Grille, call for 2 stories; brick; wood interior. (Lately noted.)

Ga., Savannah.—Restaurant.—W. A. Chaffee, Savannah, prepared plans and has contract to remodel building occupied by Olympic Restaurant; tile floors; side walls in restaurant and kitchen; metal ceiling; Typhoon fans installed; kitchen furnishing, etc.

Mo., Kansas City.—Studio.—Louise Rieger let contract to erect residence and music studio. (See Dwellings.)

Okla., Tulsa.—Laboratory.—Dr. Walter E. Wright let contract to erect laboratory and office building. (See Bank and Office.)

W. Va., Fairmont.—Club.—T. A. Deveny let contract to erect club, store and office building. (See Stores.)

## RAILWAY STATIONS, SHEDS, ETC.

Ark., Clarksville.—St. Louis, Iron Mountain & Southern Ry., E. A. Hadley, Ch. Engr., St. Louis, let contract to Chas. Cunliff, Title Guaranty Bldg., St. Louis, to erect brick passenger station. (Lately noted.)

S. C., Anderson.—Charleston & Western Carolina Ry. let contract to Jamison & Morris, Greenville, S. C., to erect freight depot; 1 story; 50x313 ft.; brick; asbestos shingle roof; wood floors; plans by A. H. Porter, Engr. Roadway, Augusta, Ga. (Lately noted.)

## SCHOOLS

Ala., Gaylesville.—Gaylesville Academy let contract to erect dormitory; water and electric lights; completion by Aug. 1.

Fla., Daytona.—Board of Public Instruction, Volusia County, let contract at \$51,600 to Florida Engineering & Contracting Co., Jacksonville, to erect 3 schools; 5, 7 and 6 rooms; brick; cost \$15,000, \$20,000, \$12,000; construction begins about June 17; Mark & Sheftall, Archts., Jacksonville. (Lately noted.)

Fla., Jacksonville.—Board of Public Instruction let contracts as follows: James N. Coons, plumbing for Northeast Springfield School and fire escapes for High School; R. L. Slaughter, contract for heating both buildings; R. A. Benjamin, Archt., Jacksonville. (Lately noted.)

La., Gaars Mill.—Building Commission let contract to erect school; J. J. Mixon, Supt., Winnfield, La. (Lately noted.)

La., Lake Charles.—Trustees let contract at \$89,554 to C. O. Eure, Hattiesburg, Miss., to erect high school; 3 stories; pressed brick; 265x78 ft.; slow-burning construction; composition roof; wood and cement floors; modulated steam heat; also let following subcontracts: Plumbing and heating, at \$3933, to Craft & Rushmore, Lake Charles; wiring, at \$1103, Barden Electric & Construction Co., Houston, Tex.; cleaning system, at \$789, Gaennie Co., New Orleans; Nolan & Torre, Archts., Hennen Bldg., New Orleans. (Lately noted.)

Miss., Cleveland.—Town let contract to Nott & Ward, Cleveland, to erect annex to school; 2 stories; 30x70 ft.; brick and stone; composition roof; wood floors; cost \$6372; steam heat, \$500; plumbing, \$700; Jake Strickland, Archt., Greenville, Miss. (Lately noted.)

Mo., Joplin.—School Dist. let contract to J. S. Helm, Joplin, to erect McKinley school addition; 2 stories and basement; 6 rooms; brick and frame; Barrett specification roof; maple floors; cost \$14,387; also let contract at \$3548 to Charles Burgess, Joplin, for steam-heating plant and plumbing; let contract at \$10,943 to Dieter & Wenzel Construction Co., Joplin, to erect addition to Lafayette school, and at \$3588 to Jas. N. Hamilton, Joplin, for steam heating and plumbing; 4 rooms and basement; Barrett roofing; maple floors; brick and frame construction; Austin Allen, Archt., Joplin. (Lately noted.)

Okla., Bessie.—School Board let contract to H. A. Kenner to erect school building; C. E. Hair & Co., Archts., Oklahoma City. (Lately noted.)

Okla., Chickasha.—Board of Education, W. F. Ramey, Secy., let contract at \$52,983 to Price & Campbell, Oklahoma City, to erect junior high school; unit plan; 1½ stories; 250x220 ft.; auditorium to seat 400; brick or stucco; battleship cork-lined linoleum gymnasium floor; other floors concrete or wood laid on concrete; cost \$70,000; plans and specifications at office Layton & Smith, Archts., 701 Majestic Bldg., Oklahoma City. (Lately noted.)

Okla., Council Hill.—School Board let contract to Manhattan Construction Co., Muskogee, Okla., to erect school; cost about \$20,000; Otto E. Sump, Joel Carr and C. S. Stone, School Commrs. (Previously noted.)

Okla., Geary.—Board of Education let contract to W. H. Reynolds, Geary, to erect high school; 170x138 ft.; 1 story; 2-story auditorium; semi-fireproof; pitch and gravel and asphalt shingle roof; concrete and wood floors; steam heat for main building; vacuum heating for auditorium; also let contract for heating and plumbing to G. K. Harris, Weatherford, Okla.; cost \$17,980; Hawk & Parr, Archts., Oklahoma City. Address Dr. D. F. Stough, Clerk Board of Education. (Lately noted.)

Okla., Jones.—Consolidated School Dist. No. 2 let contract to G. W. McBurney, Jennings, Okla., to erect school; plans by Hawk & Parr, Oklahoma City, call for 2 stories and basement; auditorium; 7 rooms; materials purchased by contractor to include matt and round-edge brick; stone; pitch and gravel roof; pine and concrete floor; reinforced concrete; florentine glass; fixtures, etc.; cost about \$13,000; let heating and plumbing contract to Oiler Heating Co., Oklahoma City. (Previously noted.)

S. C., Bamberg.—School Trustees let contract to erect addition to and remodel H. J. Brabham Hall at Carlisle School; cost \$6000; completion by Sept.

S. C., Florence.—School Board let contract at \$14,103 to W. R. Harbeck, Columbia, S. C., to erect colored school; W. J. Wilkins & Co., Archts., Florence. (Lately noted.)

Tex., Corsicana.—School Board let contract to G. W. Brillhart, Corsicana, to erect school on S. 13th St.; 34x37 ft.; 2 stories and basement; brick and concrete; asbestos roof; wood floors; no heating; cost \$6500; M. T. Horn, Archt., Corsicana. (Lately noted.)

Tex., Denton.—College of Industrial Arts let contract to Watson Co., Dallas, to erect building; plans by Ernest E. McAnnally, Southwestern Life Bldg., Dallas, Tex., call for 2 stories and basement; 155x100 ft.; fireproof; Barrett roof; pine, cement and tile floors; steam heat; electric lights; hand-power elevator; cost \$125,000; let contract for heating to Kinnison Bros., Dallas; plumbing, Montrieff & Manchester, Fort Worth; electrical work, John L. Martin, Austin. (Previously noted.)

Tex., Fort Stockton.—Trustees let contract to Ed. H. Harrell Co., Houston, to erect high school; reinforced, rock and brick; tar and gravel roof; concrete, tile and wood; ventilated room heaters; electric wiring; cost \$43,350; M. L. Waller, Archt., 413 Dan Waggoner Bldg., Fort Worth. (Previously noted.)

Tex., Houston.—School Board let contract at \$7443 to C. K. Smith, Houston, to erect 4-room addition to Magnolia Park School; completion by Sept.

Tex., San Antonio.—School Board let contract at \$6275 to O. A. Balcom, San Antonio, to erect 4-room addition to Macon St. School; Martin Wright, San Antonio, has contract for wiring at \$125; also let contract at \$5630 to Ed. Oeffinger, San Antonio, to erect 2-room addition to West End School; plans by Ralph Cameron, San Antonio; also expend \$16,000 for improvements to schools, to include painting, varnishing, calcimining, sidewalks, stairs, etc. (Lately noted.)

Va., Abingdon.—Stonewall Jackson Institute let contract at \$35,000 to John P. Pettyjohn & Co., Lynchburg, Va., to erect dormitory; accommodations for 98 students; completion by Sept. 1; 40x150 ft.; 3 stories and basement; brick and wood; slate roof; wood floors.

W. Va., Pine Grove.—Board of Education of Grant Dist., F. M. Tuttle Dist. Supt., Jacksonburg, W. Va., let contract to Kerr Lumber Co., East Liverpool, Ohio, to erect lately noted school; 60x50 ft.; 2 stories and basement; ceilings 12 ft. high; brick; stone foundation; asphalt roof; wood floors; cost \$17,395; fan system heating, \$4300; gas or electric lights; Holmboe & Lafferty, Archts., Clarksburg, W. Va. (See Machinery Wanted—Engines; Pumps; Building Materials; Electrical Equipment.)

W. Va., Roncverto.—Board of Education let contract to W. T. Gates & Co., Ronc-

verto, to erect school; 85x105 ft.; ordinary brick construction; built-up composition roof; wood floors; cost \$25,000; construction begun; H. Rus Warne, Archt., Charleston, W. Va. (Lately noted.)

## STORES

Ala., Birmingham.—Macke Real Estate & Investment Co., 2119½ First Ave., let contract to M. C. Banks, 2225-27 First Ave., Birmingham, to erect store building at 2225-27 First Ave.; 50x100 ft. with "L" 16x50 ft.; brick; 3 stories and basement; sprinkler system; tar and gravel composition roof; steam heat; cost \$30,000. Address Contr. (Lately noted.)

D. C., Washington.—Samuel Livingston, 1038 Seventh St. N. W., let contract to M. Gumenick, 1124 Fifth St. N. W., Washington, to erect store building at 908 Seventh St. N. W.; 20x70 ft.; brick; tin roof; wood floors; cost \$10,000; heating, \$900; lighting, \$500; Julius Wenig, Archt., 710 Tenth St. N. W., Washington. Address Contractor. (Lately noted.)

Ga., Augusta.—H. H. Cumming let contract to E. J. Erbeling, Augusta, to erect two 1-story brick stores at 519-21 Broad St.; brick warehouse in rear; cost \$6000.

Ga., Augusta.—Dr. W. H. Harrison let contract to E. J. Erbeling, Augusta, to erect 2-story brick stores at 734-36-38 Reynolds St.; brick warehouse in rear; cost about \$6000.

Ga., Columbus.—Chas. Loridans, Atlanta, Ga., let contract to erect addition to Ralston Hotel for stores, etc. (See Hotels.)

Ga., Douglas.—J. M. Ashley, S. J. Stubbs, M. D. Dickerson and Lawson Kelley let contract to R. M. McEachern, Douglas, to remodel buildings; 2 stories; stores on first floor; one store to have stucco exterior; cost about \$25,000. (Lately noted.)

Ga., Savannah.—P. Runderbaken let contract to W. A. Chaffee, Savannah, to erect store building.

Ky., Louisville.—Atwood Realty Co., 411 W. Main St., let contract to Alfred M. Struck, Louisville, to remodel brick store; cost \$6500; brick; metal roof; wood floors; hot-water heat; Joseph & Joseph, Archts., Louisville; construction begins July 1.

La., New Orleans.—D. H. Holmes Co., Ltd., let contract to Geo. J. Glover, New Orleans, to alter building and erect 4-story building to form part of present structure; iron columns and girders; will install floors, etc.; completion by Sept. 5; cost \$26,574.

La., New Orleans.—Maison Blanche Co., S. J. Schwarz, Mgr., let contract to Realty Construction Co., Maison Blanche Bldg., New Orleans, to erect 30,000-ft. addition to building; 6 stories; steel and concrete; additional elevators; floors, fixtures, etc.; all contracts let; completion by Oct.; Emile Well, Archt., New Orleans.

Md., Baltimore.—McDonnell Estate let contract at \$30,000 to Edward Brady & Son, 1113 Cathedral St., Baltimore, to erect 5-story business building; Baldwin & Pennington, Archts., 601-7 Professional Bldg., Baltimore.

Mo., Kansas City.—S. Z. Schutte, 25th and Grand Ave., let contract to Hughes & Welser, care of Builders' Exchange, Kansas City, to erect store and bank building; 25x97 ft.; brick walls; fireproof partitions; tar and gravel roof; tile or cement floors; vapor vacuum heat; cost \$11,000; A. H. Buckley, Archt., 821 Gloyd Bldg., Kansas City. (Lately noted.)

Mo., St. Louis.—Wm. Sauselet let contract to John Elfert, Oregon Ave., St. Louis, to erect bakery and store building; cost \$25,000.

N. C., Charlotte.—R. L. Goode let contract to C. O. Brown, Charlotte, to erect 2 business buildings; 40x30 ft. and 20x80 ft.; 2 stories and basement; brick; white-enamel front; one of which will be occupied by Charlotte Milk Co. & Creamery.

Okla., Caddo.—Lake Brewer let contract to Craghead Bros., Caddo, to erect 1-story business building; matt and round-edge face brick; stone trim; pitch and gravel roof; wood and concrete floors; steam heat; electric lights.

Tex., Amarillo.—H. W. Blackburn let contract to Ledford & Randall, Amarillo, to erect brick business building; cost \$15,000.

Tex., Ozona.—W. E. West let contract to H. M. Harvie, Ballinger, Tex., to erect store and office building; 24x80 ft.; cost \$5000; C. E. Davidson, Archt.

Tex., Brownwood.—R. B. Rogers has plans by and let contract to A. C. Bratton, Brownwood, to erect store rooms; brick; concrete floor; composition roof; electric lights; concrete sidewalks; cost \$7000. (Lately noted.)

Va., Appomattox.—R. W. Burkey let contract to W. R. Brown, Appomattox, to erect



ordinary  
position  
struction  
harleston,

Estate &  
let con-  
ve., Br-  
nt 2225-  
5x50 ft.  
sprinkler  
on roof;  
s Contr.

vingston,  
et to M.  
hington,  
enth St.  
f; wood  
lighting,  
enth St.  
contractor.

let con-  
to erect  
oad St.;

let con-  
to erect  
bls St.;  
\$8000.

Atlanta,  
Ralston

Stubbs,  
let con-  
to re-  
on first  
terior;

let con-  
to erect

. 411 W.  
Struck,  
nt \$6500;  
ot-water  
nville;

es Co.,  
er, New  
4-story  
cture;  
s floors,  
574.

the Co.,  
Realty  
Bldg.,  
tion to

Aluminum Utensils, etc.—Florida Pine-  
apple Juice Co., Fort Pierce, Fla.—Prices  
on hard-shell enamel, to stand acid and  
steam; aluminum utensils, pans, dishes, etc.;  
wire gates.

Art Glass.—See Building Materials.—First  
Baptist Church.

Art Glass.—C. W. Bulger, Praetorian  
Bldg., Dallas, Tex.—Prices on art glass, etc.,  
for \$12,000 church at Glenrose, Tex.

Automobile.—See Oil (Cocoonut) Ma-  
chinery, etc.—Gontard & Co.

Boilers.—Bureau Yards and Docks, Navy  
Dept., Washington, D. C.—Bids until June  
24 for two 350 H. P. boilers and a steel  
stack for naval station, Island of Guam;  
specifications on application to Bureau.

Boilers.—Fisherman's Co-operative Union,  
Wm. Estopinal, Gen. Mgr., Gulfport, Miss.—  
Prices on boilers.

Boilers.—See Heating.—Dr. L. S. Booker.

Bridge Construction.—Noxubee County  
Supr., John A. Tyson, Chancery Clerk,  
Macon, Miss. Bids until July 5 to construct  
4 concrete or brick bridges; plans and specifi-  
cations on file with Chancery Clerk.

Bridge Construction.—Maryland State  
Roads Commission, F. H. Zouck, Chrmn.,  
601 Garrett Bldg., Baltimore, Md.—Bids un-  
til July 5 to re-erect on new concrete abut-  
ments 2 steel bridges and construct one new  
concrete bridge, all on Clarksville pike, be-  
tween Ellicott City and Elloak. (See Road  
Construction.)

Boilers and Tubes.—E. M. Co., 602  
Drake Bldg., Easton, Pa.—4 water tube  
boilers and 64 four-inch boiler tubes.

Bridges (Steel).—Tulsa County Com-  
missioners, Tulsa, Okla.—Bids until July 3  
to furnish material and construct 17 steel  
bridges; 90x16 ft.; 36x16 ft.; 45x16 ft.;  
60x16 ft.; 80x16 ft.; 20x16 ft.; 16x16 ft.;  
30x16 ft.; 16x16 ft.; 16x16 ft.; 70x16 ft.; 50x16  
ft.; 90x16 ft.; 80x16 ft.; 20x16 ft.; 36x16 ft.;  
plans and specifications on file at offices of  
Lewis Cline, County Clerk, and of County  
Engr., Courthouse, Tulsa.

Contract  
to \$25,000.

Contract  
2 busi-  
ness en-  
amel  
d by

Contract  
1-story  
ge face  
of roof;  
elec-

Contract  
to \$15,000.

Contract  
to store  
000; C.

Plans  
Brown-  
concrete  
; con-  
noted.)

Contract  
to erect

brick store building; tin roof; wood floors;  
gas lighting; cost \$3000.

Va., Norfolk.—Atkinson Building Co. let  
contract to Arcade Building Co., Norfolk, to  
erect store and apartment building at  
Church St. and Princess Anne Ave.; 45x60  
ft. and 20x80 ft.; brick; non-fireproof; gravel  
roof; wood floors; cost \$12,000; Jas. W. Lee,  
Arch't., Seaboard Bank Bldg., Norfolk. (Pre-  
viously noted.)

W. Va., Fairmont.—T. A. Deveny, Adams  
St., has plans by J. C. Burchinal, Trust Co.  
Bldg., and let contract to T. L. Burchinal,  
26 Jefferson St., both of Fairmont, to erect  
store, office and club building; 6 stories and  
basement; reinforced concrete and hollow  
tile; prepared roofing; hollow tile and rein-  
forced concrete floors; cost \$30,000; vacuum  
raper heat, \$3000. Address contractor.

Va., Richmond.—D. Kocen, 3909 Williams-  
burg Ave., let contract to W. S. Pridy, 801  
W. Marshall St., Richmond, to erect store  
building; 29.4x75 ft.; brick, steel and wood;  
tin roof; wood floors; cost \$7000; I. Throck-  
morton, Arch't., 210 N. 7th St., Richmond.  
(Lately noted.)

## WAREHOUSES

Fla., Orlando.—Jos. Bumby let contract to  
Henry Green, Box 234, Orlando, to erect ad-  
dition to warehouse; 2 stories; brick;  
wooden joists, 52x56 ft.; tin roof; other  
contracts include: Metal windows and wire  
glass, Dalman & Dozier, Atlanta; roofing  
and skylight, Routh & Caldwell, Orlando;  
brick work, Harry Gauthier, Orlando.  
(Lately noted.)

Fla., West Palm Beach.—Ross Bros. let  
contract to Williams & Kinney, West Palm  
Beach, to erect warehouse; 30x115 ft.; 2  
stories; hollow tile, with stucco front;  
metal roof; to be occupied by F. A. Gild.

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind  
are requested to consult our advertising columns, and if they cannot find  
just what they wish, if they will send us particulars as to the kind of  
machinery or supplies needed we will make their wants known free of cost,  
and in this way secure the attention of manufacturers and dealers through-  
out the country. The Manufacturers Record has received during the week  
the following particulars as to machinery and supplies wanted.

## "WANTS"

Aluminum Utensils, etc.—Florida Pine-  
apple Juice Co., Fort Pierce, Fla.—Prices  
on hard-shell enamel, to stand acid and  
steam; aluminum utensils, pans, dishes, etc.;  
wire gates.

Art Glass.—See Building Materials.—First  
Baptist Church.

Art Glass.—C. W. Bulger, Praetorian  
Bldg., Dallas, Tex.—Prices on art glass, etc.,  
for \$12,000 church at Glenrose, Tex.

Automobile.—See Oil (Cocoonut) Ma-  
chinery, etc.—Gontard & Co.

Boilers.—Bureau Yards and Docks, Navy  
Dept., Washington, D. C.—Bids until June  
24 for two 350 H. P. boilers and a steel  
stack for naval station, Island of Guam;  
specifications on application to Bureau.

Boilers.—Fisherman's Co-operative Union,  
Wm. Estopinal, Gen. Mgr., Gulfport, Miss.—  
Prices on boilers.

Boilers.—See Heating.—Dr. L. S. Booker.

Bridge Construction.—Noxubee County  
Supr., John A. Tyson, Chancery Clerk,  
Macon, Miss. Bids until July 5 to construct  
4 concrete or brick bridges; plans and specifi-  
cations on file with Chancery Clerk.

Bridge Construction.—Maryland State  
Roads Commission, F. H. Zouck, Chrmn.,  
601 Garrett Bldg., Baltimore, Md.—Bids un-  
til July 5 to re-erect on new concrete abut-  
ments 2 steel bridges and construct one new  
concrete bridge, all on Clarksville pike, be-  
tween Ellicott City and Elloak. (See Road  
Construction.)

Boilers and Tubes.—E. M. Co., 602  
Drake Bldg., Easton, Pa.—4 water tube  
boilers and 64 four-inch boiler tubes.

Bridges (Steel).—Tulsa County Com-  
missioners, Tulsa, Okla.—Bids until July 3  
to furnish material and construct 17 steel  
bridges; 90x16 ft.; 36x16 ft.; 45x16 ft.;  
60x16 ft.; 80x16 ft.; 20x16 ft.; 16x16 ft.;  
30x16 ft.; 16x16 ft.; 16x16 ft.; 70x16 ft.; 50x16  
ft.; 90x16 ft.; 80x16 ft.; 20x16 ft.; 36x16 ft.;  
plans and specifications on file at offices of  
Lewis Cline, County Clerk, and of County  
Engr., Courthouse, Tulsa.

Ga., Columbus.—Meritas Mills let contract  
to T. C. Thompson & Bros., Charlotte, N. C.,  
to erect 2 warehouses; 4 compartments  
each; 5 and 6 stories; mill construction;  
tar and gravel roof; elevator; cost about  
\$150,000; construction begun. (Lately noted.)

Ga., Butler.—C. W. Bazemore let contract  
to O. S. Cox, Butler, to erect warehouse;  
75x75 ft.; brick; tin roof; wood floors; light  
from local plant; cost \$4000. (Lately noted  
under Stores.)

Ga., Tifton.—Central Grocery Co. let con-  
tract to V. C. Parker & Son, Waycross, Ga.,  
to erect warehouse; 75x236 ft.; 1-story; fire-  
proof; brick and concrete; cold storage,  
etc.; cost about \$25,000. (Noted in Jan.)

Md., Baltimore.—Hess Steel Corp. let con-  
tract to Price Construction Co., 225 St. Paul  
St., Baltimore, to erect warehouse at Loney's  
lane and Pennsylvania R. R.; 20x70 ft.;  
semi-fireproof; Blanke & Zink, Archts.,  
Equitable Bldg., Baltimore.

Miss., Booneville.—Corinth Grocery Co.,  
Louis K. Peeler, Mgr., let contract to W. R.  
McCord, Chas. E. Rowsey and Geo. W. Pat-  
rick to erect warehouse.

S. C., Clinton.—Commercial Bank let con-  
tract to Chas. L. Rounds, Clinton, to erect  
cotton warehouse.

Tex., San Antonio.—Brown Candy &  
Cracker Co. let contract to Chas. M. Schoen-  
feldt, San Antonio, to erect warehouse;  
lately noted; 68x148 ft.; brick; carrying ca-  
pacity 400 lbs. to sq. ft.; cost \$10,000. (See  
Miscellaneous Factories.)

Tex., San Antonio.—Brown Candy &  
Cracker Co. let contract to Chas. M. Schoen-  
feldt, San Antonio, to erect warehouse;  
lately noted; 68x132 ft.; brick; carrying ca-  
pacity 400 lbs. to sq. ft.; Barrett roofing;  
wood floors; cost about \$12,000; Reuter &  
Harrington, Archts., San Antonio. (See Mis-  
cellaneous Factories.)

Concrete Frame.—King Lumber Co.,  
Charlotte, Va.—Bids to erect concrete frame;  
100x172 ft.; 9 stories.

Corrugated Iron, etc.—Edw. Godleske,  
Box 124, Burnham, Pa.—Following materials  
for manufacture of fertilizer distributor:  
Corrugated sheet iron, to go around 6-in.  
diam. and 5-ft. roll; angle iron, 2x2 in., for  
frame work; galvanized iron sheeting; per-  
forated sheet metal screen, 3/32 holes;  
springs, coil about 3 in. long and 2 in. diam.,  
wire steel; also 3-in. long by 3/4-in. coil  
springs, wire steel; gear wheels, sprocket  
wheels, chain belt (small), and castings  
for bearings.

Crate (Egg) Machinery or Plant.—  
D. W. R. Shafner, Fayetteville, Tenn.—Cor-  
respondence with manufacturers of egg  
crate machinery; interested to purchase ma-  
chinery or an established egg crate plant.

Creamery Machinery.—R. W. Shriner,  
Daphne, Ala.—Prices on creamery equip-  
ment.

Creamery Machinery, etc.—Russell  
Creamery Co., Henry S. Klein, Mgr., Rus-  
sell, Ky.—Prices on one 100 H. P. and one  
20 H. P. gas engines; deep well pump;  
creamery machinery; 25-ton ice tank, with  
cork and pipe for large ice storage.

Crucibles.—See Laundry Machine, etc.—  
Bureau Supplies and Accounts.

Crusher and Rolls.—Lineville Graphite  
Co., Lineville, Ala.—Prices on 12-ton-cap-  
acity-per-hour jaw crusher, breaking ore to  
1/2 inch; also two 16x30 closed and dust-  
proof bearing rolls; new or second hand;  
(Sturtevant preferred.)

Crushing (Nut) Machinery.—See  
Sugar Refining Machinery, etc.—David Mul-  
len.

Drainage Construction.—Commrs.  
Bayou Paul Drainage Dist. of Iberville  
Parish, G. W. Sitman, Prest., Burtville, La.  
Bids until June 29 for removal of 70,000 cu.  
yds. earth from Bayou Paul between Gren-  
ada Swamp and Spanish Lake, about 8 mi.;  
bids to state price per cu. yd. for work as  
unit; further information on application.

Electric-Light Plant.—Luling Gin Co.,  
Carl Ecklund, Mgr., Luling, Tex.—Prices on  
25-light electric-light plant.

Electric Equipment.—Dr. L. S. Book-  
er, Durham, N. C.—Prices on electric equip-  
ment for \$800 residence.

Electric Generator.—Southern Engine  
& Pump Co., 615 Washington Ave., Houston,  
Tex.—50 K. W. revolving field 3-phase 60-  
cycle 2300-volt A. V. belt-driven generator  
with exciter; 900 or 1200 R. P. M.; state  
make, price and shop number.

Electric Motors.—J. T. Christian Press,  
N. Corcoran St., Durham, N. C.—Prices on  
electric motors.

Electric Motors, Aluminum Plates,  
etc.—D. T. R. Retana, 42 Broadway, New  
York.—Addresses of manufacturers of elec-  
tric motors, aluminum plates, platinum and  
nickel wire, steel rods for umbrellas, print-  
ing inks, rubber sponges, thermos bottles,  
sandpaper, brushes, and bristles for brushes.

Electric-Light Equipment.—City of  
Blackwell, Okla.—Bids until June 14 to fur-  
nish ornamental street-lighting system; 110  
1000 candle-power single light standards;  
two 30 K. W. constant current transformers  
and 2-circuit switch panel; Benham Engi-  
neering Co., Consult, Engr., Colcord Bldg.,  
Oklahoma City.

Electrical Equipment.—Board of Edu-  
cation, Grant Dist., F. M. Tuttle, Dist.  
Supt., Jacksonburg, W. Va.—Prices on elec-  
trical equipment for \$17,356 school.

Electrical Supplies.—See Manufac-  
tured Products.—A. Marchais.

Electrical Work.—E. Wilbur Stoll,  
Brooklyn, Md.—Prices on electrical work for  
\$3000 residence.

Engine.—Graf-Davis-Collett Co., Salls-  
bury, N. C.—125 H. P. Corliss engine; sec-  
ond-hand; first-class condition; low price.

Engines.—See Pumps.—Board of Edu-  
cation, Grant Dist.

Engine.—E. M. Co., 602 Drake Bldg.,  
Easton, Pa.—Second-hand or new 21x36 or  
larger Corliss engine.

Engine (Gas).—See Creamery Machin-  
ery, etc.—Russell Creamery Co.

Fertilizer Mixer.—T. S. Granberry, Box  
3, Douglassville, Ga.—Fertilizer mixer.

Heating.—Jones & Roger, Box 143, Kings-  
port, Tenn.—Prices on heating plant for  
\$14,000 church building.

Heating.—Dr. L. S. Booker, Durham, N.  
C.—Prices on boilers for steam-heating plant  
for \$8000 residence.

Heating Plant (Steam).—J. T. Chris-  
tian Press, N. Corcoran St., Durham, N. C.—  
Prices on steam-heating plant.

Heating Equipment, etc.—Office of  
Supt. of Schools, High School Bldg., Tulsa,  
Okla.—Bids until June 19 for heating, ven-  
tilating and mechanical system for proposed  
Central High School Bldg.; drawings and  
specifications on file with Geo. Winkler,  
Arch't., 414-115 Palace Bldg., Tulsa.

Heating Plant.—National Training  
School, J. E. Shepard, Prest., Durham, N.  
C.—Prices on boilers and heating equip-  
ment to heat building of 4000 sq. ft.

Heating Plant.—E. Wilbur Stoll, Brook-  
lyn, Md.—Prices on hot-water heating plant  
for \$3000 residence.

Hose.—Navy Dept., Bureau Supplies and  
Accounts, Washington, D. C.—Bids, Sch.  
9771, on 400 ft. rubber lined cotton fire hose,  
delivery Philadelphia, and 8000 ft. rubber  
lined cotton fire hose, delivery Norfolk;  
Sch. 9777, 8800 ft. linen unlined fire hose,  
delivery Boston, Philadelphia, Norfolk; 300  
ft. suction hose, and 3300 ft. wash deck hose,  
Sch. 9777, delivery Boston.

Ice Machinery.—See Creamery Machin-  
ery, etc.—Russell Creamery Co.

Ice Plant.—R. W. Shriner, Daphne, Ala.  
Prices on new or first-class second-hand 5  
to 10-ton ice plant.

Iron.—See Manufactured Products.—A.  
Marchais.

Jewelry, etc.—Ripley Printing Co., 106  
Huntington Ave., Jonesboro, Ark.—Addresses  
of manufacturers and jobbers of jewelry  
novelties, silverware, queensware, etc.

Knitting Machines.—Fred C. Chavez,  
care W. C. Mann Co., Houston, Tex.—Ho-  
sery knitting machines.

Lathe.—Ingalls Iron Works Co., Birming-  
ham, Ala.—Second-hand lathe, about 20 in.,  
with 8 or 16-ft. bed; good make; perfect  
condition.

Laundry Machine, etc.—Bureau Sup-  
plies and Accounts, Navy Dept., Washing-  
ton, D. C.—Bids until June 29 for furnishing  
and installing laundry machine at Naval  
Hospital, and for delivering mineral oil,  
liners, crucibles and altimeters at Navy-  
yard. Apply for proposals to Bureau.

Leather Novelties.—Riley Printing Co.,  
106 Huntington Ave., Jonesboro, Ark.—Ad-  
dresses of manufacturers of leather novelties,  
such as card cases, check book covers, etc.

Lighting Fixtures.—Treasury Dept.,  
Supervising Arch't's Office, Washington, D.  
C.—Bids until June 28 for furnishing and  
installing lighting fixtures in United States  
postoffice, custom-house and courthouse at  
Hilo, Hawaii, in accordance with drawings  
and specifications; copies obtainable.

Locomotives.—Harvey Co., 113 South  
St., Baltimore, Md.—Standard gauge switch-  
ing engine and 29 to 24-ton Shay or Climax  
geared locomotive, 36-in. gauge.

Machinery, etc.—Allan D. Roberts En-  
gineering Co., 72 1/2 Harbour St., Kingston,  
Jamaica.—To represent manufacturers of  
labor-saving machinery, sugar mills, agri-  
cultural implements, bags for 200-lb. ice  
block, etc.

Maple.—Makepeace Sash & Door Co.,  
Jonesboro, N. C.—Maple for various pur-  
poses.

Margarine Machinery.—See Sugar Re-  
fining Machinery, etc.—David Mullen.

Manufactured Products.—G. J. Tsat-  
sos, 37 Rue de Hermes, Athens, Greece.—To  
represent American manufacturers of var-  
ious classes of products.

Manufactured Products.—Solomon L.  
Balens, Gibraltar.—To represent American  
manufacturers prepared to develop Gibraltar  
and Morocco trade.

Manufactured Products.—A. Marchais,  
Ave. des Semis, Royan, France.—To repre-  
sent manufacturers of hardware for build-  
ing; kitchen hardware; rope, twine; elec-  
tric wires, lamps; electrical supplies; medi-  
cal apparatus, electric; electrical instru-  
ments; barbed wire; corrugated sheet iron;  
roofing slate; household and housekeeping  
goods cooking utensils; sporting goods;  
photographers supplies; butter and cheese;  
artificial butter; canned foods; dried beans,  
fish and fruit; drugs and druggists' goods;  
patent remedies; chemicals; 95 per cent. al-  
cohol; red (yellow) pine and pitch pine  
timber; pine boards; cast-iron pig (can  
use large quantity if quick delivery is  
made); cotton or jute or canvas bags; linen  
canvas.

Metals.—Navy Dept., Bureau Supplies and  
Accounts, Washington, D. C.—Bids on 3000  
lbs. bronze angles, Sch. 9779, and miscel-  
laneous phosphor bronze, Sch. 9781, delivery  
Boston, Mass.; 1600 oz. silver anodes, Sch.  
9779; 6200 lbs. bar naval brass and 15,000 lbs.  
ferromanganese, Sch. 9781, delivery Brook-  
lyn; 600 lbs. shot form nickel, Sch. 9781,

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

delivery Philadelphia; \$9,700 lbs. boiler plate steel, Sch. 9781, delivery Portsmouth, N. H.; sheet steel, Sch. 9763, delivery Washington.

**Metal-working Machinery.**—Harry Donkle, Wilmington, N. C.—Date and prices on machinery for cutting and welding iron; neetylene or other method.

**Millwork.**—C. Harrison Smith, Huntington, W. Va.—Prices on mill work for \$25,000 residence.

**Mining (Coal) Equipment.**—Kenmont Coal Co., C. A. Case, Prest., Zanesville, O.—Mine equipment (portion already bought) for operation Jeff, Ky.; shipping point Hamlin, Ky., on L. & E. branch of Lou. R. R. (5 ml. from Hazard.)

**Mixer (Concrete).**—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until June 27 for delivering rubber gaskets, concrete mixer, rivets and steel at Navy-yard, Washington. Apply for proposals to Bureau.

**Mixers (Concrete).**—See Road Machinery.—P. R. Ashby.

**Oil (Cocconut) Machinery, etc.**—Gontard & Co., 82 Beaver St., New York.—Complete equipment of machinery to cultivate cocoanuts for oil, with special machine to mill seed or rattan especially hard; machine to remove fiber and clean coconut shells; sawing machine, base and car without boiler, saw measuring 24 in.; freight automobile of 3 to 4 tons to carry cocoanuts.

**Ornamental Iron.**—See Building Materials.—King Lumber Co.

**Paving.**—City of Fulton, Mo.—Bids until July 6 to construct 2000 sq. yds. bituminous macadam and 1450 lin. ft. concrete curb; plans, specifications and bidding blanks obtainable from F. E. Baker, City Engr.

**Paving.**—Town of Morgantown, N. C., C. T. Cain, Mgr.—Bids until June 20 to construct 6000 yds. concrete paving on West Union St., contractor to furnish material; also bids to furnish all stone, sand and cement; specifications furnished for \$1.

**Paving.**—City of Canton, Miss., W. L. Dinkins, Mayor.—Bids until June 26 (postponed date) on about 5000 sq. yds. pavement, brick, concrete, wood blocks or asphalt; 4 mi. gravel macadam; 2½ ml. concrete curb and gutter, and 2600 ft. pipe storm sewers, 12 to 36 in. diam.; Walter G. Kirkpatrick, Engr., 704 Farley Bldg., Birmingham, Ala.; plans and specifications on file.

**Paving.**—Street Improvement Dist. No. 252, J. M. Conner, Chrmn., Little Rock, Ark.—Bids until June 16 to pave W. 15th St. from Pulaski to High St.; plans and specifications from Supt. of Public Works.

**Paving.**—Street Improvement Dist. No. 4, Sid Brain, Secy., Stuttgart, Ark.—Bids until June 21 to construct 27,800 lin. ft. concave gutter, 4570 lin. ft. combined curb and gutter and 35,629 sq. yds. pavement; bids on concrete, bituminous and macadam pavement, rock or gravel; plans on file with Secy. of Dist. and with Towl Engineering Co., Stuttgart.

**Paving.**—City of Henderson, N. C., G. W. Adams, City Clerk.—Bids June 29 to construct 35,000 ft. concrete curb and gutter, and necessary storm drainage, etc.; plans and specifications on file with city clerk and with Const. Engrs., Anderson & Christie, Charlotte, N. C., and are obtainable for \$5 from the engineers at their Wilson, N. C. office.

**Paving.**—City of Cleveland, Miss., W. W. Boone, City Engr.—Bids until June 20 to construct 10,060 lin. ft. gravel pavement; plans and specifications on file with L. M. Guynes, City Clerk, and W. W. Boone, City Engr.

**Paving, etc.**—City Commrs., Galveston, Tex.—Bids to construct 1255 sq. yds. concrete paving and 1860 lin. ft. 6x16-in. concrete coping; plans and specifications from A. T. Dickey, City Engr.; H. O. Sappington, Commr. of Streets and Public Property.

**Paving.**—City of Reidsville, N. C.—J. E. Amos, Chrmn., Street Committee.—Bids until June 21 to grade and pave with sheet asphalt about 20,000 sq. yds. Main St.; specifications obtainable by bidders for \$5 from James D. Womack, Clerk; J. N. Ambler, Consult. Engr., Winston-Salem, N. C.

**Paving.**—De Soto County Commrs., A. L. Durrance, Clerk, Arcadia, Fla.—Bids until July 3 (according to plans and specifications on file with Clerk and with Phil Lacey, Engr., Zolfo, Fla.) on following: 561,749 sq. yds. sand asphalt, brick, rosmac, sand-clay, bituminous macadam, bitosand or other pavement; bids received on entire work or separate specified parts.

**Paving.**—Mayor and Aldermen, Cleveland, Miss.—Bids until June 20 to construct 10,060 lin. ft. gravel pavement; plans and

specifications on file office of L. M. Guynes, City Clerk, and of W. W. Boone, City Engr.

**Paving.**—City of Greenville, N. C., J. C. Tyson, City Clerk.—Bids until July 6 for street improvements: 30,000 sq. yds. brick, asphalt, bitulithic or other pavement; 25,000 lin. ft. granite curb; 20,000 lin. ft. concrete gutter; 1000 sq. yds. sidewalk; necessary drainage, etc.; plans and specifications on file at office of Clerk and of Gilbert C. White, Engr., Durham, N. C.

**Pipe.**—See Valve Reseater, etc.—Bureau Supplies and Accounts.

**Pipe.**—Glen Raven Cotton Mills, Glen Raven, N. C.—3000 ft. 4-in. or 3-in. (4-in. preferred) used or second-hand standard cast-iron socket water pipe.

**Pipe.**—City of Columbia, S. C., John McNeal, City Engr.—Bids until June 27 to furnish 120,000 lin. ft. vitrified sewer pipe and specials, diam. 8 to 18 in., inclusive; specifications on application; R. C. Keenan, Council Supt. of Engineering.

**Pipe, Fittings, etc.**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids on composition pipe fittings and brass valves, Sch. 9780; 35 urinals and 252 controlling valves, Sch. 9779, delivery Brooklyn; lead pipe for lining and steel tubing, Sch. 9779, delivery Norfolk; 14 steam traps and 51 reducing valves, Sch. 9780, and malleable iron unions, Sch. 9779, delivery Philadelphia; seamless brass tubing and bronze tubing, Sch. 9763, delivery Newport, R. I.

**Plumbing.**—Jones & Boger, Box 143, Kingsport, Tenn.—Prices on plumbing for \$14,000 church building.

**Printing Plant.**—C. R. Broyles, Petersburg, W. Va.—Printing press; new or second-hand; for county newspaper; complete outfit, power preferred.

**Pumps.**—Fisherman's Co-operative Union, Wm. Estopinal, Gen. Mgr., Gulfport, Miss.—Prices on pumps.

**Pumps.**—Board of Education, Grant Dist., F. M. Tuttle, Dist. Supt., Jacksonburg, W. Va.—Prices on pumps and engines.

**Pumps.**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids on 16 pumps—main air, fuel oil, etc.—Sch. 9770, delivery Norfolk, Mare Island.

**Pump (Deep Well).**—See Creamery Machinery, etc.—Russell Creamery Co.

**Pumping Plant Equipment.**—Yazoo & Mississippi Delta Levee Board, T. G. Dabney, Ch. Engr., Clarksdale, Miss.—Bids until July 3 to furnish and install equipment for pumping plant; 22,500 G. P. M. low-head centrifugal pump, direct connected to one uniflow engine; 115 H. P. horizontal return tubular boiler, with steel casing, suspension and stack; surface condenser, air and circulating pumps; suction and discharge pipe line, 36 in. diam., about 400 ft. long, riveted steel pipe, with suction inlet and discharge enlarged; concrete and frame pumping station and concrete piers for support of pipe line; plans and specifications on view at office; copies obtainable from Thos. H. Allen, Consult. Engr., 206 Bank of Commerce Bldg., Memphis, Tenn.

**Railroad Rolling Stock.**—D. T. R. Retana, 42 Broadway, New York.—Addresses of manufacturers of railroad rolling stock.

**Reinforced Concrete Frame.**—See Building Materials.—King Lumber Co.

**Road Construction.**—Holmes County Commrs., Lexington, Miss.—Bids July 3 to construct 27 mi. macadam road; Engrs., Snowden & Hauser, Jackson and Columbus, Miss.

**Road Construction.**—Colber County Commrs., Courthouse, Tusculuma, Ala.—Bids until July 12 to grade, drain and surface with gravel 8 mi. of Tusculuma and Russellville Rd. from top of mountain to county line; plans and specifications on file with State Highway Dept., W. S. Keller, State Highway Engr., Montgomery, Ala., and at Courthouse, Tusculuma.

**Rivets.**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids on boiler steel rivets, Sch. 9782, delivery Norfolk, and flathead steel rivets, Sch. 9763, delivery Washington.

**Road Construction.**—Warren County Commrs., M. H. Crump, County Road Engr., 24 Courthouse, Bowling Green, Ky.—Bids until June 15 on highway construction to amount of \$12,000 or \$15,000.

**Road Construction.**—Owen County Commrs., T. O. Prather, County Judge, Owenton, Ky.—Bids until June 16 to reconstruct 32 mi. macadamized road; C. E. Faulkner, Engr.

**Road Construction.**—Capeville Road Commission, A. Preston Scott, Secy.-Treas., Cape Charles, Va.—Bids until June 15 to construct 25 mi. sand-clay road in Capeville

Dist., Northampton County; plans and specifications on file at Clerk's office, Eastville, Va., with Capeville Road Commission at Cape Charles and with State Highway Commission, G. P. Coleman, State Highway Commr., Richmond, Va.

**Road Construction.**—Ballard County Court, G. O. Johnson, Clerk, Wickliffe, Ky.—Bids until June 16 to construct 54.88 mi. gravel roads, involving following quantities: Earth excavation, 98,724.8 cu. yds.; gravel for surfacing, 131,147.9 cu. yds.; reinforced concrete, 2914.2 cu. yds.; hauling and placing 12-in. corrugated pipe, 506 lin. ft.; hauling and placing 18-in. corrugated pipe, 1158 lin. ft.; hauling and placing 24-in. corrugated pipe, 16 lin. ft.; shaping and rolling subgrade, 54.88 mi.; plans and specifications on file with County Clerk at Wickliffe and Commr. of Public Works at Frankfort, Ky.

**Road Construction.**—Highway Com. of Dist. No. 1 (Henry Hart and others), Winona, Miss.—Bids until July 5 to construct 13 ml. macadam or gravel highway to be section of Jefferson Davis Highway; plans and specifications by Snowden & Hauser, Civil and Const. Engrs., Jackson and Columbus, Miss. on file with Chancery Clerk; detailed plans, specifications and proposal blanks furnished for \$2 on application to engineers.

**Road Construction.**—Craven County Commrs. (H. M. Groves, County Auditor, and J. A. Miller, Supt. of Roads), New Bern, N. C.—Bids until July 3 to construct sections of Trent and Vanceboro Roads; cement gravel; specifications furnished on application.

**Road Construction.**—Edgecombe County Commrs., H. S. Bunn, Clerk, Tarboro, N. C.—Receive bids July 3 to construct 10 ml. sand clay roads; Supt. of Roads will show route and furnish specifications.

**Road Construction.**—Talbot County Commrs., Jos. B. Harrington, Clerk and Treas., Easton, Md.—Bids until June 27 to construct section State aid highway on Peachblossom Road, from Fair grounds to Peachblossom bridge, 2 ml.; bids to be made on blank forms to be obtained from State Roads Com., 601 Garrett Bldg., Baltimore; plans can be seen and forms of proposal and contract obtained for \$1 from State Roads Com.; Frank W. Seth, County Roads Engr.

**Road Construction.**—Tallapoosa County Commrs., Dadeville, Ala.—Bids until July 10 to construct 12 ml. road from Zana to Chambers County line via Daviston; 20 ml. from Alexander City to Elmore County line via Outtown; 70 ml. from Camp Hill to Lee County line; 5 ml. from Camp Hill to Chambers County line; 16 ml. from Outtown to Dadeville via Young's Ferry; also to construct steel bridges in connection; plans, specifications and profiles on file with G. J. Sorrell, Judge of Probate.

**Road Construction.**—Highway Commissioners, C. C. Robbins, Chrmn., Second Dist., Pontotoc County, Pontotoc, Miss.—Bids until June 23 to construct 25 ml. road; Jos. P. Carey, Engr., Pontotoc.

**Road Construction.**—Lee County Commissioners, H. A. Hendry, Clerk, Fort Myers, Fla.—Bids until June 21 to hard surface road from Fort Myers to Horse Creek, 9½ ml. from Naples, with water-bound macadam (crushed from native rock) or with marl mixture; plans and specifications on file with P. F. Jenkins, Engr., Fort Myers.

**Road Construction.**—Maryland State Roads Commission, F. H. Zouck, Chrmn., 601 Garrett Bldg., Baltimore, Md.—Bids until June 27 to construct 5 sections State highway, about 21.40 ml., as follows: Contract A. A. 8, Anne Arundel County, 6 ml. gravel or concrete between Mt. Zion and Hills bridge; contract B-23, Baltimore County, 3.07 ml. macadam resurfacing, oil bound, on York Rd. from Verona to Hereford; Frederick County, contract F-18-A, 4 ml. macadam resurfacing, oil bound, on Emmitsburg pike; Talbot county, contract T-9, 5 ml. concrete roadway, State Rd. between Stumptown and Trappe; Worcester County, contract W-14, 3.33 ml. concrete on State Rd. between Pocomoke and Virginia State line; specifications and plans obtainable from Commission for \$1.

**Road Construction.**—Maryland State Roads Commission, F. H. Zouck, Chrmn., 601 Garrett Bldg., Baltimore, Md.—Bids until July 5 to construct 8 sections State highways, about 28.83 ml., and 3 bridges, as follows: Contract A-13, Allegany County, 5 ml. macadam construction, oil bound, National pike; contract B-25, Baltimore County, 3 ml. concrete roadway, Liberty Rd.; contract Co-17, Caroline County, 0.47 ml. concrete roadway, State Rd. through Preston; contract Ch-13, Charles County, 5.66

ml. gravel construction, State Rd.; contract D-10, Dorchester County, 4.40 ml. concrete or macadam, State Rd.; contract H-10, Howard County, 2 ml. macadam resurfacing, oil bound, Clarksville pike; contract H-10, Howard County, re-erecting on new concrete abutments 2 steel bridges and constructing 1 new concrete bridge, all on Clarksville pike between Ellicott City and Elioak; contract F-18-B, Frederick County, 4.50 ml. macadam resurfacing, oil bound, Emmitsburg pike; contract S-7, Somerset County, 3.80 ml. concrete roadway, State Rd.; plans and specifications obtainable from Commission for \$1 on application.

**Road Construction.**—Bell County Fiscal Court, W. C. Bingham, County Clerk, Pineville, Ky.—Bids until June 24 to improve road between forks of Straight Creek and Cary; plans and specifications on file with County Road Engr.

**Road Construction.**—Hawkins County Road Commrs., H. B. Stamps, Chrmn., Rogersville, Tenn.—Bids until July 6 to improve 90 ml. of road; work consists of grading, macadamizing, bridge and concrete work and hauling and laying pipe lines; work to be divided into 8 sections; bids received on each section and on whole; plans and specifications on file after July 1 with Hawkins County Road Commrs., Rogersville; S. C. Cornwell, Ch. Engr., Rogersville.

**Road Machinery.**—Noxubee County Supvrs., John A. Tyson, Clerk, Mason, Miss.—Bids until July 3 to furnish spreader, heater and road sweeper; spreader to spread oil, asphaltum and other rock road dressings.

**Road Machinery.**—See Traction Engines, etc.—Warrenton & Fairfax Turnpike Co.

**Road Machinery.**—P. R. Ashby, Contr., Littleton, N. C.—Prices on standard road machine with scarifier attachment; steam roller; concrete mixer; wheelers, size 2½, capacity 15 cu. ft.; for road construction, Littleton township, Halifax County.

**Rolls.**—See Crusher and Rolls.—Lineville Graphite Co.

**Roofing.**—Jones & Boger, Box 143, Kingsport, Tenn.—Prices on slate roofing for \$14,000 church building.

**Roofing and Sheet Metal.**—See Building Materials.—King Lumber Co.

**Sawmill.**—H. F. Sly, Alliceville, Ala.—Sawmill, about 10,000 ft. capacity, and edger for same; complete equipment; new or second-hand.

**Sawing Machines.**—See Oil (Cocconut) Machinery, etc.—Gontard & Co.

**Seating.**—C. W. Bulger, Praetorian Bldg., Dallas, Tex.—Prices on seats for \$12,000 church building at Glenrose, Tex.

**Sewage Disposal Plant.**—City of Clarkville, Tex., C. E. Terry, Mayor.—Bids until June 23 to make certain alterations in addition to sewage disposal plant; plans and specifications on file with Henry E. Elrod, Const. Engr., Dallas, Tex.

**Sewer Construction.**—City of Houston, Tex., Ben Campbell, Mayor.—Bids until June 23 to construct sewage-disposal and pumping plants; cost \$400,000; plans and specifications obtainable from E. E. Sands, City Engr., for \$25.

**Sewer Construction.**—Board of Public Works, D. B. McKay, Chrmn., Tampa, Fla.—Bids until June 20 to construct sanitary sewers on North Blvd. and alleys east of boulevard and north of Cypress St.; 3200 lin. ft. 8-in. T. C. pipe; 2300 lin. ft. 6-in. T. C. pipe; 132 lin. ft. 8-in. C. I. pipe; 10 Y's and 20 manholes; specifications and plans obtainable from City Engr.; Allen Thomas, Clerk.

**Sewer Construction.**—City of Lancaster, Tex., H. E. Rawlings, City Secy.—Bids until June 16 to construct sanitary sewer system; 3100 ft. 8-in. and 15,500 ft. 6-in. sewers; also treatment plant of 5000 gals. daily capacity and consisting of Imhoff tank, filters and sludge bed; plans and specifications on file with City Secy.; N. Wrenskiold, Engr., Dallas, Tex.

**Sewer Construction.**—City of Lexington, Ky., Jas. C. Rogers, Mayor.—Bids until June 20 to construct outfall sewers; about 7000 cu. yds. earth and rock excavation; over 1100 ft. vitrified pipe sewer; about 5000 ft. concrete sewers, etc.; plans and specifications on file with W. H. McCorkle, Commissioner of Public Works, and copies may be obtained for \$10.

**Sewer Construction.**—City of Canadian, Tex., Oswald Hudson, Mayor.—Bids until June 30 to construct sanitary sewer system; plans and specifications obtainable from Henry E. Elrod, Const. Engr., 907 Southwestern Life Bldg., Dallas, Tex., for \$5.



1; contract  
d. concrete  
tract Hoil,  
resurfacing  
tract Hoil,  
new con-  
and con-  
ce, all on  
City and  
ck County,  
oil bound,  
Somerset  
way. State  
obtainable  
ation.  
ounty Fla-  
nty Clerk,  
21 to In-  
ght Creek  
ons on file

County  
nty Clerk,  
21 to In-  
ght Creek  
ons on file

County  
nty Clerk,  
21 to In-  
ght Creek  
ons on file

County  
nty Clerk,  
21 to In-  
ght Creek  
ons on file

County  
nty Clerk,  
21 to In-  
ght Creek  
ons on file

County  
nty Clerk,  
21 to In-  
ght Creek  
ons on file

County  
nty Clerk,  
21 to In-  
ght Creek  
ons on file

County  
nty Clerk,  
21 to In-  
ght Creek  
ons on file

County  
nty Clerk,  
21 to In-  
ght Creek  
ons on file

County  
nty Clerk,  
21 to In-  
ght Creek  
ons on file

County  
nty Clerk,  
21 to In-  
ght Creek  
ons on file

County  
nty Clerk,  
21 to In-  
ght Creek  
ons on file

County  
nty Clerk,  
21 to In-  
ght Creek  
ons on file

County  
nty Clerk,  
21 to In-  
ght Creek  
ons on file

County  
nty Clerk,  
21 to In-  
ght Creek  
ons on file

**Steel.**—See Mixer (Concrete).—Bureau Supplies and Accounts.

**Steel (Structural and Reinforcing).**—See Building Materials.—King Lumber Co.

**Springs (Coil).**—See Corrugated Iron, etc.—Edward Godleske.

**Stump Puller Manufacture.**—R. L. Beasley, Prest., National Colonizers & Stump Machinery, Dothan, Ala.—Correspondence with view to placing order for manufacture of gasoline steam and horse-power patented stump puller of electric or crucible steel; manufacturer must be equipped to assemble structural steel and have turning lathes capable of handling 10 tons steel daily.

**Sugar Refining Machinery, etc.**—David Mullen, 92 Dunlop St., Glasgow, Scotland.—To correspond with builders of machinery for refining sugar, manufacturing margarine, grinding nuts, etc.

**Terra-cotta.**—See Building Materials.—King Lumber Co.

**Tires, etc.**—Bruno Beaulieu, 128 St. Denis St., Montreal, Canada.—To represent manufacturers of tires and other automobile supplies.

**Tools, Hardware, etc.**—Panama Canal, Earl I. Brown, Gen. Purchasing Officer, Washington, D. C.—Bids until June 29 to furnish pig-iron, pig-tin, pig-aluminum, iron fence railing, chain, saws, stocks and dies, taps, drills, bits, boiler punches, adzes, axes, hatchets, hammers, flatters, chisels, wrench parts, wrenches, vises, pliers, planes, squares, levels, dividers, trowels, soldering coppers, jacks, shovels, chain blocks, files, hinges, asbestos gaskets, asphaltum, calcium chloride, etc.; blanks and general information (circular 1664) obtainable from this office or offices of assistant purchasing agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, and Fort Mason, San Francisco; also from U. S. Engr. offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash.

**Traction Engine.**—Harvey Co., 113 South St., Baltimore, Md.—25 to 30 H. P. traction engine complete.

**Traction Engines, etc.**—Warrenton & Fairfax Turnpike Co., J. Donald Richards, Secy., Warrenton, Va.—Prices on 2 traction engine hauling outfits with trailers; steam preferred; will buy or rent second-hand hauling outfits; also wants (hire or purchase) 18 or 22 H. P. traction engine for hauling road grader.

**Trolley System.**—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until June 27 for services and installation of overhead track and trolley equipment at Naval Academy, Annapolis. Apply for proposals to navy pay office, Baltimore, or to Bureau.

**Tubing.**—See Valve Resenter, etc.—Bureau Supplies and Accounts.

**Valve Resenter, etc.**—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until June 27 for delivering fire hose, valve reseating machines, muslin, oars, pine tar oil, paints and varnish, pipe, rivets and tubing at Navy-yard, Norfolk. Apply for proposals to supply officer, Navy-yard, Norfolk, or to Bureau.

**Vacuum Cleaner.**—E. Wilbur Stoll, Brooklyn, Md.—Prices on installation vacuum cleaner for \$3000 residence.

**Varnish.**—T. W. Dowda, Locker, Tex.—Prices on varnish.—See Cane (Chair), etc.

**Viaduct Construction.**—Committee, Alex. Sanger, Chrmn., Dallas, Tex.—Bids until June 21 to construct east approach to Commerce St. viaduct and change grade of Commerce St., between Houston St. and Broadway; separate bids on Section A as provided in specifications; Section B, as provided in specifications; specifications on file with City Engr., and with Chrmn. of Committee.

**Wagons (Bottom Dump).**—Columbus Sewer Pipe Co., Columbus, Ga.—Correspondence with manufacturers of bottom dumping 4-wheel hand wagons; light, to hold about 1 yd. cinders, and be handled by one man.

**Water Works.**—Noxubee County Supvrs., John A. Tyson, Chancery Clerk, Macon,

Miss.—Bids until July 3 to remodel water works at jail; plans and specifications on file with Chancery Clerk.

**Water-works.**—City Water-works, J. A. Steele, Jr., Mgr., Vicksburg, Miss.—Bids until June 30 for following: Brick store-room and shop; brick coagulating tank-house and storeroom; raising of coagulating basin walls with concrete 2 ft.; plans and specifications on file in Water-works office.

**Water-works.**—Comms. Water Improvement Dist. No. 1, W. F. Gordon, Chrmn., Harrison, Ark.—Bids until June 26 to construct water-works, to consist of power-house, triplex power pump, oil engine or electric motor, reinforced concrete reservoir, pipe lines, hydrants, valves, etc.; resetting old machinery and renewing old pipe; bids for furnishing any of materials

above or for constructing water-works complete; plans may be seen and blank proposal forms obtained from W. O. Galbreath, Consult. Engr., Harrison.

**Wheels (Gear, Sprocket).**—See Corrugated Iron, etc.—Edward Godleske.

**Wire Gates.**—Florida Pineapple Juice Co., Fort Pierce, Fla.—Prices on wire gates.—See Aluminum Utensils, etc.

**Wire (Platinum and Nickel).**—See Electric Motors, Aluminum Plates, etc.—D. T. R. Retana.

**Woodworking (Toothpick) Equipment.**—Geo. H. Leigh, Druryville, Va.—Date and prices on toothpick machinery.

**Yarns.**—D. A. K. Neas, 341 E. Third North St., Morristown, Tenn.—Addresses of manufacturers of mop yarns.

## RAILROAD CONSTRUCTION

### RAILWAYS

Fla., Saint Johns Park.—Florida East Coast Ry. Co. says that the suggested extension from San Mateo to Saint Johns Park, 30 mi., is at present only a rumor. No surveys have been made.

Ga., Savannah.—Midland Ry. Co., George M. Brinson, Prest., is seeking entrance for construction of line into Savannah. Atlantic Engineering Co. of Savannah, Lawrence Manning, Prest., is contractor.

Ga., St. Clair.—Savannah & Northwestern Railway is reported to have completed track on extension from St. Clair to Camak on the Georgia Railroad, 35 mi., and expects to establish freight service between Savannah and Atlanta in 30 days. J. H. Hunter, Savannah, Ga., is Prest.

Md., Baltimore.—Pennsylvania Railroad (Philadelphia, Baltimore & Washington) has awarded contract to McMullin & Melvin, of New York, to widen its tunnel between Union and Fulton stations, about 1½ mi. G. R. Sinnickson, Baltimore, is Supt.

Md., Big Pool.—Armstrong & Bragg are reported to have taken a subcontract under Mason, Hanger & Co. of Lexington, Ky., on second track for Western Maryland Ry. between Big Pool and Clearspring, Md.

Miss., Gulfport.—Gulfport & Mississippi Coast Traction Co. will extend its line to the Hines mill site. W. F. Gorenflo is Gen. Mgr.

Miss., Pittsboro.—George C. Brown Lumber Co. expects to build a railroad to develop timber land recently purchased in Calhoun county.

Okla., Atoka.—Missouri, Kansas & Texas Ry. has practically completed widening banks on line from Atoka to Oklahoma City, 133 mi., and ballasting will shortly begin. Banks and cuts all to be made standard width. Estimated cost \$250,000. L. F. Lonnbladh, Dallas, Tex., is Ch. Engr.

Okla., Blackwell.—Oil Fields Short Line R. R., recently chartered, will build 20 mi. of line from near Peckham, Okla., to Braman and Blackwell. Location survey not yet complete. Wm. Matthews, Box 451, Blackwell, Okla., is Ch. Engr. (See Manufacturers Record, June 8.)

Okla., Edmond.—Grading is completed to a point within 3 mi. of Guthrie on the 16-mi. extension of the Oklahoma Ry. from Edmond to that city, and track is laid on 9 mi. Line to be completed by July 1. Guy B. Treat, Oklahoma City, is Ch. Engr.

S. C., Clinton.—Carolina Rapid Transit Co., capital stock from \$50,000 to \$3,500,000, has received charter to build proposed electric railway lines connecting Spartanburg, Union, Woodruff, Enoree, Laurens and Clinton, altogether about 85 mi. Petitioners, J. F. Jacobs of Clinton and others, as heretofore reported.

S. C., Greenville.—The new yard proposed by the Southern Railway is about half a mile south of the passenger station and the grade is being made wide enough to lay, in addition to the two main line tracks, nine other tracks for yard purposes. The yard will be about 4500 ft. long. H. J. Dunavant & Co., of Knoxville, Tenn., is the contractor.

S. C., Walterboro.—W. C. Wolfe of Orangeburg, S. C., is reported interested in plans for the construction of a railroad from Branchville to Smoaks, S. C., about 10 mi., to connect the Branchville & Bowman and

the Hampton & Branchville railroads to make a through line from Bowman to Hampton, altogether about 45 mi.

Tenn., Chattanooga.—Nashville, Chattanooga & St. Louis Ry. will soon begin construction of the extension from Cravens to Alton Park. It has also made survey to North Chattanooga. H. McDonald, Nashville, is Ch. Engr.

Tenn., Chattanooga.—Nashville, Chattanooga & St. Louis Ry. proposes to spend about \$40,000 to extend and improve the Cravens yards. H. McDonald, Nashville, Tenn., is Ch. Engr.

Tex., Dallas.—Texas & Pacific Railway Co. says that its plans for the elimination of grade crossings in Dallas is not sufficiently developed for announcement.

Tex., Eagle Pass.—A. B. Hillan of Eagle Pass, says that the proposed railroad from Eagle Pass "to some points on the International & Great Northern Railroad" would be about 80 mi. long. Three surveys made, but route not yet chosen. Country generally level. \$300,000 or more in bonuses will be raised. Expected to let contract about July 15.

Tex., Marlin.—Marlin-Temple Interurban Promotion Co. has filed incorporation papers and S. D. Hanna, Chief Engr., expects to have plans and surveys ready in 60 days for construction of the proposed electric railway from Marlin to Temple, Tex., 25 or 30 mi. Incorporators: G. W. Glass and W. W. Turner of Marlin; S. D. Hanna, Wm. Ginnuth, Geo. Houghton and E. W. Moore of Temple.

Tex., San Benito.—San Benito & Rio Grande Ry. proposes to build an extension from Los Indios to the Harlingen pumping plant. S. A. Robertson of San Benito is Prest.

Tex., Texarkana.—Yard construction of the St. Louis, Iron Mountain & Southern R. R. (Missouri Pacific System) is rearrangement of tracks, which will be done by company forces. E. A. Hadley, St. Louis, Mo., is Ch. Engr.

Va., Clifton Forge.—Major Bros. & Carpenter of Clifton Forge have been awarded a contract to fill in long trestles and build concrete bridges and culverts on the Cabin Creek branch of the Chesapeake & Ohio Ry.

Va., Norfolk.—Atlantic Coast Line has bought a block of water-front property at York and Bute Sts. for terminal improvement. J. E. Willoughby, Wilmington, N. C., is Ch. Engr.

Va., Richmond.—Chesapeake & Ohio Railway has bought from the Atlantic Land & Improvement Co. a lot 20 ft. wide on the west side of Sixth St., and extending back 200 ft. to the canal, this for the construction of a connection between the Chesapeake & Ohio Railway and the Atlantic Coast Line. F. I. Cabell, Richmond, is Chief Engr.

Va., Richmond.—Chesapeake & Ohio Ry. will build an upgrade crossing at Crozet. Va. F. I. Cabell, Richmond, is Ch. Engr.

W. Va., Seth.—Contract let to Boxley Bros. Co. of Orange, Va., by the Chesapeake & Ohio Railway to build a line from Seth to Jerrold's Valley, 14 mi., via Coal River, will include two bridges and a number of culverts. Route is through rough mountain country. F. I. Cabell, Richmond, Va., is Chief Engr. for the railway.

### STREET RAILWAYS

Ark., Camden.—An ordinance has been introduced in the City Council to grant a street-railway franchise to R. W. Mason and S. Q. Sevier.

## FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

### FINANCIAL CORPORATIONS

Ala., Birmingham.—Industrial Loan & Guaranty Co., Incptd. with \$1,000,000 capital, has begun business. J. C. Corcoran and Frank Loughran, Jr., are interested.

Ark., Heber Springs.—Bank of Heber Springs is chartered; capital \$15,000. A. A. Hodge, Prest.; A. C. Christison, Cashier.

Ga., Albany.—Georgia Trust & Banking Co. is chartered; capital \$100,000. Incorporators: F. F. Putney, E. E. Wetherbee, E. B. Young, H. A. Peacock and others.

Ga., Blue Ridge.—Fannin County Bank, successor to North Georgia National Bank, is organized with \$25,000 capital. J. M. Eaton, Prest.; Wm. Wilson and J. B. Chastain, V.-Ps.; J. F. Holden, Cashier.

Ga., Savannah.—Realty Savings & Trust Co. has filed articles of incorporation; capital \$500,000; incorporators, W. H. Stillwell, W. M. Coney, C. G. Royland, J. A. Ash, J. E. Carolan and J. M. Rogers.

Ky., Hazel.—The Dees Bank of Hazel has begun business; capital \$20,000.

La., Alexandria.—Alexandria Mortgage & Securities Co., capital \$100,000, is organized with Robt. Stack, Prest.; W. D. Hill, V.-P.; R. M. Hetherwick, Secy. and Treas.

Okla., Boswell.—First National Bank has absorbed the State National Bank of Boswell. Capital \$50,000; surplus \$10,000. S. C. Boswell, Prest.; W. W. Moran, Active V.-P.; W. W. Jeter, Cashier.

S. C., Georgetown.—Industrial Building & Loan Assn. is chartered; capital \$30,000. I. J. McCottrie, Prest.; W. B. McCray, V.-P., and R. J. Jackson, Secy. and Treas.

Tenn., Adams.—The People's Bank & Trust Co., capital \$10,000, is Incptd. by W. R. Edwards, J. E. Winters, G. C. Head, S. P. Alsbrock and J. A. Whitehead; offices will be in the Masonic Bldg.

Tenn., Nashville.—A new State bank and trust company is being organized with capital of from \$50,000 to \$100,000. Walter Crockett will be Prest. and J. F. Joyner, Cashier.

Tex., Amarillo.—Guaranty State Bank is authorized to do business; capital \$75,000. C. D. Bynum, Prest. and C. P. Elliott, Cashier.

Tex., Clyde.—Guaranty State Bank is to be chartered to take over the business of the Clyde Banking Co.; capital \$10,000. W. H. Shanks is Cash. Business is to begin as soon as charter is granted.

Tex., San Antonio.—Commonwealth Bank & Trust Co. of San Antonio, a new concern, chartered with \$300,000 capital, began business June 1. The new concern took over the assets of the West Texas Bank & Trust Co., paying all depositors in full; Harry Landa, New Braunfels, Prest.; H. P. Drought, V.-P.; W. R. Wiseman, Active V.-P.; T. N. Smith, Cash.; Tom Jarrell and Juan Fodora, Asst. Cashs.

Va., Craigsville.—Bank of Craigsville has organized with W. S. Johnson, Prest.; Dr. J. L. Harkins, V.-P.; Ray Gouchenour, Cash. Business is expected to begin about July 1.

### NEW SECURITIES

Ala., Birmingham.—Geo. B. Ward, Prest. Board of Comms., writes the Manufacturers Record that suit has been filed against the Board by a citizen concerning the \$2,000,000 school, \$500,000 auditorium and \$500,

### Merchants-Mechanics National Bank

South and Water Sts., BALTIMORE, MD.  
DOUGLAS H. THOMAS, President.  
JNO. B. RAMSAY, V.P. and Chm. Bd. of Dir.  
JOHN B. H. DUNN, Cashier.  
Capital \$2,000,000. Deposits \$21,478,000.  
Surplus and Profits \$2,175,000.  
Accounts of Banks, Bankers, Corporations and Individuals solicited.  
We invite correspondence.

### The National Exchange Bank OF BALTIMORE, MD.

Hopkins Place, German and Liberty Sts.  
Capital, \$1,500,000.  
March 30, 1915, Surplus and Profits, \$850,000.00.  
OFFICERS:  
WALDO NEWCOMER, President.  
SUMMERFIELD BALDWIN, Vice-Pres.  
R. VINTON LANSDALE, Cashier.  
C. G. MORGAN, Asst. Cashier.  
Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

### We Buy Bonds

City, County, School and Road, from Municipalities and Contractors.  
WITH  
THE PROVIDENT SAVINGS BANK & TRUST CO.  
CINCINNATI OHIO

### Municipal Bonds BOUGHT

from Contractors and Municipalities  
STACY & BRAUN  
Second National Bank Bldg., TOLEDO, O.

### First National Bank

RICHMOND, VIRGINIA  
Capital and Surplus - - - - \$3,000,000  
JNO. B. PURCELL, President.  
JNO. M. MILLER, JR., Vice-Pres.  
W. M. ADDISON, Cashier.

**WE BUY BONDS** CITY, COUNTY, SCHOOL DISTRICT  
CORRESPONDENCE INVITED FROM CONTRACTORS AND OFFICIALS  
**SIDNEY SPITZER & CO.,** Spitzer Building, TOLEDO, OHIO  
NEW YORK CHICAGO CINCINNATI

### WE BUY Municipal Bonds

ISSUED BY  
Counties, Cities, School Districts and Road Districts.  
WRITE US  
**CUMMINGS, PRUDDEN & CO.**  
Second National Bank Building  
TOLEDO, OHIO

### Stronger Investments

The wonderful prosperity of the United States has so increased the earning capacity and the assets of many of the companies whose securities we recommend for investment that, while these securities can still be purchased to yield a most attractive return, they are intrinsically stronger today than they ever have been before.

For an example we invite requests for Circular No. AG-177, which describes a strong mortgage bond yielding over five per cent.

### A. B. Leach & Co.

Investment Securities  
62 Cedar St., New York  
Chicago Philadelphia Buffalo  
Boston Baltimore

Delaware Corporations organized through the office of the DELAWARE REGISTRATION TRUST COMPANY, successor to Corporation Department, Delaware Trust Company, 900 Market street, Wilmington, Delaware.

The Delaware law is stable, provisions liberal, and at a minimum cost—departments for organization, acting as Registrar and Transfer Agent.

J. Ernest Smith, President & General Counsel.  
Chas. Warner Smith, Vice-President.  
Harry W. Davis, Secretary and Treasurer.  
Charles B. Bishop, Assistant Secretary.

### The First National Bank OF KEY WEST, FLA.

United States Depository and Disbursing Agent.  
Capital - - - - \$100,000  
Surplus and Undivided Profits - - 40,000  
A general banking business transacted.  
Special attention given to collections.

### THE TILLOTSON & WOLCOTT CO.

CLEVELAND, OHIO  
**BUYERS OF COUNTY CITY SCHOOL AND DRAINAGE BONDS**  
Correspondence Solicited

### POWELL, GARARD & CO.

39 S. La Salle Street  
CHICAGO, ILL.  
We Buy Southern Municipal Bonds (County, City, School, Road and Drainage District).

### JOHN NUVEEN & CO.

First National Bank Building, CHICAGO  
We purchase SCHOOL, COUNTY and MUNICIPAL BONDS. Southern Municipal Bonds a Specialty.  
Write us if you have bonds for sale.

### LOANS

On Legacies, Inheritances, Stocks, Bonds, Notes, Accounts Receivable, Warehouse Receipts, Raw Material or Manufactured Product.

L. N. ROSENBAUM & CO.  
80 Wall Street NEW YORK

### FOR SALE

Timber, Coal, Iron, Ranch and Other Properties.  
Southern States. West Indies. Mexico.

**GEO. B. EDWARDS**  
(Broker.)  
Tribune Building, NEW YORK, N. Y.  
Confidential Negotiations. Investigations, Settlements and Purchases of Property.

### Maryland Trust Company

BALTIMORE  
Capital . . . . \$1,000,000  
TRANSACTS A GENERAL TRUST AND BANKING BUSINESS  
Correspondence and interviews invited

### CONTRACTORS AND MANUFACTURERS

**TIME** **CHECKS**  
N. R. P. CO.  
200  
TIME CHECK

We Make Them Promptly.  
Headquarters for SEALS, STOCK CERTIFICATES, STENCILS, STEEL DIES, BRASS SIGNS, ENAMEL PLATES, MEMORIAL PLATES, CHURCH SEALS and FEW PLATES, Made on our Premises. Send for Catalogue.  
**THE J. F. W. DORMAN COMPANY**  
BALTIMORE, MD.

500 lighting plant 5 per cent. bonds recently voted, which action will delay indefinitely the issue of the securities. The suit was filed by T. C. McDonald, who, it appears, according to press reports, questions the right of the authorities to levy tax to pay the bond interest.

Ala., Decatur.—Election to vote on \$50,000 5 per cent. 20-year electric light bonds will be held June 15. Address Mayor Nelson.

Ala., Florence.—\$50,000 5 per cent. 30-year bond school bonds have been sold at \$49.50 net. M. M. Striplin is Prest., School Board.

Ala., Huntsville.—\$50,000 Madison County road warrants have been sold at par at 4½ per cent. interest to the Farmers Loan & Trust Co., New York.

Ala., Jacksonville.—Election is to be held July 10 to vote on an additional \$250,000 school bonds. Address Board of Education.

Ark., Arkansas City.—\$700,000 5½ per cent. bonds Cypress Creek Drainage Dist. have been purchased at par by Wm. R. Compton Co., of St. Louis, and Spitzer, Rorick & Co., Toledo.

Ark., Arkansas City.—School Board Dumas School Dist., Desha county, has authorized issue of school bonds. I. N. Moore is Secy.

Fla., Bradentown.—Special dispatch to Manufacturers Record says that \$75,000 6 per cent. 10-20-year Englewood Special Road and Bridge Dist., Manatee County, road bonds have been purchased at \$73.50 by Eugene Fies, Birmingham, Ala.

Fla., De Land.—\$100,000 municipal improvement bonds are reported voted. Address The Mayor.

Fla., Fort Myers.—\$102,500 bonds Special Road and Bridge Dist. No. 1 have been purchased at 95 with accrued interest by the Bank of Fort Myers.

Fla., Palatka.—Bids will be received until 10 A. M., July 8 by Board of Drainage Commrs., Bostwick Drainage Dist., Putnam County, for \$25,000 6 per cent. 10-25-year \$1000 denomination drainage bonds, dated March 1, 1916. D. P. Hancock is Chrmn., Board.

Fla., Pensacola.—Bids will be received until June 30 by A. S. Edwards, Supt. Public Instruction Escambia County, for \$12,000 6 per cent. school bonds.

Fla., Tampa.—Election will probably be called to vote on \$4000 Oak Ridge Dist., Hillsborough County, school bonds. Address County School Board.

Ga., Folkston.—Charlton County is considering question of issuing road bonds. Address Board County Commrs.

Ga., Leesburg.—\$80,000 5 per cent. 1-30-year Lee County courthouse, road and bridge bonds have been purchased by J. H. Hillsman & Co., Atlanta, Ga.

Ga., Martin.—Election is to be held July 12 to vote on \$10,000 5½ per cent. \$500 denomination school bonds, dated Sept. 1, 1916 and maturing Jan. 1, 1920 to Jan. 1, 1939, inclusive. Jas. H. Crawford is Mayor.

Ga., Swainsboro.—Question of Issuing bonds for water works and sewerage is under consideration. Address The Mayor.

Ky., Somerset.—\$300,000 4½ per cent. Pulaski County road bonds will be offered for sale 2 P. M. June 23; maturity, \$25,000 at end of 5 years, \$10,000 each year thereafter for 20 years, and \$15,000 each year thereafter till paid. R. F. Jasper is Judge Pulaski County. Further particulars will be found in the advertising columns.

La., Alexandria.—Election is to be held July 11 to vote on \$30,000 5 per cent. 40-year park bonds. Address The Mayor.

La., Amite City.—Bids will be received until 10 A. M. July 11 for \$110,000 bonds Road Dist. No. 3, Tangipahoa parish. H. P. Mitchell is Prest. Police Jury and J. U. Vining Clk.

La., Baton Rouge.—Board of Commrs. Fifth Louisiana Levee Dist. will make application to the General Assembly of Louisiana for authority to issue \$1,000,000 bonds.

E. C. Rhodes is Prest. and O. W. Campbell Secy. of Dist.

La., Baton Rouge.—A special dispatch to the Manufacturers Record from W. R. Hatcher, Secy. Treas. School Board, says that \$125,000 of 5 per cent. school site, building and equipment bonds of East Baton Rouge Parish, School Dist. No. 9, for which bids were opened June 6, were sold to the Bank of Baton Rouge at par plus \$5626 and accrued interest.

La., Coushatta.—Bids will be received until 10 A. M., July 11, for \$30,000 5 per cent. bonds, Road Dist. No. 3, Red River Parish. Dated May 17, 1916; maturity May 17, 1937 to 1934, inclusive. Address Police Jury.

La., Crowley.—Bids will be received until 3 P. M., June 21, by John Marsh, Prest., Fourth Ward Drainage Dist. No. 1, for \$30,000 5 per cent. 24-year bonds, dated July 1, 1916.

La., Farmville.—Police Jury Union Parish has voted to issue bonds to fund indebtedness amounting to \$29,000.

La., Lake Charles.—\$30,000 5 per cent. 8-year average \$500 denomination bonds School Dist. No. 8 have been purchased at par, accrued interest and \$250 premium by the Mortgage Securities Co., New Orleans, La.

La., Mansfield.—\$250,000 5 per cent. \$500 and \$1000 denomination DeSoto County highway bonds have been purchased at par, \$750 premium and accrued interest by Bank of Commerce, and Peoples Bank, Mansfield, and Commercial National Bank, Shreveport, La.

Md., Cambridge.—The 4½ per cent. Dorchester county bonds have been sold as follows: \$120,000 redemption to Poe & Davies, Baltimore, Md., at \$102.846; \$35,000 to Nelson, Cook & Co., Baltimore, at \$102.77. James R. Jones is County Treas.

Md., Baltimore.—Bids will be received until noon June 19 for the \$2,303,400 4 per cent. city stock as follows: \$500,000 Annex improvement, 1951 loan; \$500,000 paving, 1951 loan; \$300,000 water, 1958 loan; \$275,000 conduit, 1962 loan; \$288,300 Dock Improvement, 1961 loan; \$225,300 New Sewerage Improvement, 1961 loan; \$304,300 Schoolhouse, 1961 loan. The sale is authorized preliminary to paying off the \$5,000,000 water stock due July 1. Address Commrs. of Finance, Richard Gwinn is City Register.

Miss., Clarksdale.—Bids will be received until 9 A. M. June 21 for \$36,000 5 per cent. 1-10-year Coahoma County road bonds. Address Board of Supervisors, S. F. Carr, Clerk. Further particulars will be found in the advertising columns.

Miss., Cleveland.—\$33,000 5½ per cent. 20-year \$500 denomination water-works, street, bridge and school bonds have been purchased at par, accrued interest and premium of \$615 by the Bank of Commerce & Trust Co., Memphis, Tenn.

Miss., Collins.—Board of Trustees of Sanford Consolidated School Dist., has petitioned the Board of Suprvs. of Covington County to issue \$15,000 school bonds. Seminary Consolidated Dist. has petitioned for a \$20,000 bond issue.

Miss., Corinth.—Bids will be received until 2.30 P. M. July 5 for \$65,000 Gulf Road Dist., Alcorn county, bonds; interest not to exceed 6 per cent. O. M. Hinton is Clk. Bd. Suprs.

Miss., Goodman.—Bids will be received until 8 P. M. July 1 by A. N. Roberts, Clerk, Board of Mayor and Aldermen, for \$5000 6 per cent. \$100 and \$500 denomination electric light bonds, dated July 1, 1916. A. N. Roberts is Clerk. Further particulars will be found in the advertising columns.

Miss., Greenville.—Bids will be opened Aug. 7 for \$50,000 Washington county road bonds recently voted. W. W. Miller is County Clk.

Miss., Gulfport.—\$125,000 5 per cent. \$1000 denomination Mississippi Centennial Exposition bonds have been purchased at \$425 premium by the Ilibernia Bank & Trust Co., New Orleans.

Miss., Hazlehurst.—\$25,000 5 per cent. Dist. No. 5, Copiah County, road bonds have been purchased by the Bank of Hazlehurst at 100.10.

Miss., Lexington.—Bids will be received until noon July 3 for \$200,000 30-year Road Dist. No. 1, \$175,000 10-25-year Road Dist. No. 2 and \$100,000 30-year Road Dist. No. 5 5 per cent. Holmes County bonds. J. H. Fuqua is Chancery Court Clerk. Further particulars will be found in the advertising columns.

Miss., McComb City.—\$30,000 5 per cent. 1-20-year school bonds have been purchased at \$103.166 by McColgan Bros., McComb City.

Miss., Meridian.—Election is to be held June 26 to vote on \$12,000 Poplar Springs, Lauderdale County, school bonds. If elec-

**W.S. BARSTOW & CO.**  
INCORPORATED  
CONSULTING and  
CONSTRUCTION ENGINEERS  
PUBLIC SERVICE PROPERTIES  
FINANCED and MANAGED  
50 Pine Street New York



## Municipal Bonds Purchased

Correspondence invited from investors wishing to sell their holdings of seasoned marketable Municipal Bonds, and from municipal officials and contractors in connection with entire new issues.

### N. W. HALSEY & CO.

49 Wall Street, New York

PHILADELPHIA CHICAGO ST. LOUIS SAN FRANCISCO

### W. M. DAVIS COMPANY

## Southern Municipal Bonds

AND

## Guaranteed Stocks

MACON, GEORGIA

### We Buy City, County School and Drainage BONDS

FROM MUNICIPALITIES OR CONTRACTORS

We are in position to pay HIGHEST PRICES

Write or wire us your offerings

THE NEW FIRST NATIONAL BANK Assets, \$8,000,000 COLUMBUS, O.

### WE BUY MUNICIPAL, COUNTY and DISTRICT BONDS

FROM OFFICIALS DIRECT OR FROM CONTRACTORS

And are Equipped by Experience to Furnish Proper Advice and Legal Proceedings

Write to Us

THE RUDOLPH KLEYBOLTE COMPANY

18 East Fourth Street Established 1891 Cincinnati, Ohio

### — WE BUY BONDS —

Of Cities, Counties, School, Road or Drainage Districts

AND SPECIALIZE

In Working With Contractors and Engineers

W. L. SLAYTON & CO., - TOLEDO, OHIO

## Marketing Municipal Bonds

It is the mutual advantage of the municipality and the bond dealer to incorporate **Attractive Features** which will appeal to the investor.

We shall be pleased to accord the benefit of our 30 years' experience in the Municipal Bond Business regarding contemplated issues.

### Seasongood & Mayer CINCINNATI

### LOANS MADE TO STATES, CITIES, COUNTIES, ETC.

Also Entire Issues of Bonds Purchased

We prepare and certify as to the genuineness of MUNICIPAL BONDS

Largest Capital and Surplus of Any Financial Institution in Maryland or Any Southern State.

Established 1884

Resources \$21,000,000

MERCANTILE TRUST AND DEPOSIT COMPANY  
OF BALTIMORE

A. H. S. POST, President

F. G. BOYCE, Jr., Vice-President

tion carries, bids for same will be received until July 3. W. R. Pistole is Clerk Board of Supvrs.

Miss., Meridian.—\$12,500 Poplar Springs Consolidated School Dist., Lauderdale County, school bonds will be voted on June 26 and probably sold August 1. W. R. Pistole is Clerk Board of Supvrs. Lauderdale County.

Miss., Meridian.—Bids will be received until 2 P. M., July 5 for the following Lauderdale County school bonds, dated April 1, 1916; interest not to exceed 6 per cent. Denomination \$100: \$4000 Whynot Consolidated School Dist.; \$5000 Kewanee Consolidated School Dist. Address W. R. Pistole, Clerk of Board of Supervisors, Meridian, Miss.

Miss., Pascagoula.—Bids will be received until noon July 3 by Fred. Taylor, Chancery Clerk, Jackson County, for \$40,000 5 per cent. \$500 denomination bonds Supvrs. Dist. Nos. 3 and 4. Dated July 15, 1916; maturity July 15, 1926 until 1941, inclusive.

Miss., Pittsboro.—\$30,000 6 per cent. \$500 denomination Calhoun county funding bonds have been sold at \$951 premium to John Nurren & Co., Chicago. A. J. Sims is County Clerk.

Miss., Starkville.—Election is to be held June 27 to vote on road bonds for Beat 2, Oktibbeha County. Address Bd. of Supvrs.

Miss., Sumrall.—\$20,000 water bonds will probably be issued. Address The Mayor.

Miss., Winona.—Election is to be held August 5 in Montgomery County to decide question of making Beat 2 a separate road dist. If election carries bonds for roads will be issued. Address County Commrs.

Miss., Yazoo City.—Election is to be held June 30 to vote on road bonds for Beat 2, Yazoo county. Address Bd. of Supvrs.

Miss., Yazoo City.—Bids will be received until noon June 28 for the following 6 per cent. 10-25-year Yazoo County road bonds, dated July 1, 1916; \$133,000 Supvrs. Dist. No. 1; \$160,000 Supvrs. Dist. No. 5; \$350,000 Supvrs. Dist. No. 3. S. S. Griffin is Clerk.

Miss., Yazoo City.—Bonds for road improvements in Beat 4, Yazoo County, will probably be issued. S. S. Griffin is County Clerk.

Mo., Cape Girardeau.—\$15,000 fire apparatus bonds are voted. Address The Mayor.

Mo., Greenfield.—\$25,000 Red Oak, Dade County, road bonds are voted. A similar issue was recently defeated at Lockwood, and another election is to be called. Address County Commrs.

Mo., Ironton.—\$15,000 5 per cent. \$1000 denomination school district bonds, dated June 1, 1916, and maturing June 1, 1917 to 1941, inclusive, have been purchased by Kaufman-Smith-Emert Investment Co., St. Louis, Mo., at 312 and accrued interest.

Mo., Madison.—\$16,000 school bonds are voted. Address Bd. of Education.

Mo., Marshall.—Election is to be held June 3 to vote on \$75,000 lighting-plant bonds. Address The Mayor.

Mo., Mount Vernon.—\$15,000 Red Oak Special Road Dist., Lawrence County bonds are voted. Address County Commrs.

N. C., Apex.—Election is soon to be held to vote on \$12,000 electric light bonds. Address The Mayor.

N. C., Asheville.—Following elections are to be held in Buncombe County to vote on school bonds: June 13, \$7500 for Fairview, and June 20, \$35,000 for Black Mountain. Address County Commrs.

N. C., Charlotte.—The following 5½ per cent. school bonds have been purchased at \$551 premium by Powell Garard & Co., Chicago. \$15,000 Huntersville Dist. No. 1 and \$12,000 Dewese Dist. No. 1. J. M. Matthews is Secy., Board of Education, Charlotte, N. C.

N. C., Dunn.—\$55,000 5 per cent. 10-20-year street and other improvement bonds have been sold at a premium to the Cape Fear Bank.

N. C., Garland.—\$20,000 5 per cent. bonds Bladenboro School Dist., Bladen County, will be offered for sale July 3. Address B. J. Cromartie, Supt. County Public School. Further particulars will be found in the advertising columns.

N. C., Greenville.—Elections will soon be held to vote on \$50,000 Winterville and \$50,000 Ayden townships, Pitt County, road bonds. Address County Commrs.

N. C., Nashville.—Election is to be held in Nash County July 11 to vote on \$3000 bonds Mount Pleasant School Dist. No. 1, Bailey's Township, Nash County. J. B. Boddie is Clerk, Board of County Commrs.

N. C., Pittsboro.—\$50,000 good-roads bonds Cape Fear Township, Chatham County, have been purchased at \$50,510 by F. L. Fuller Co., Cleveland, O.

Okla., Broken Bow.—\$12,000 school bonds are reported voted. Address Board of Education.

Okla., Chandler.—Election is to be called to vote on \$12,000 school bonds. Address Board of Education.

Okla., Clinton.—Election is to be held July 1 to vote on \$225,000 water-works bonds. F. E. Gannaway is Mayor.

Okla., Dewey.—\$40,000 school bonds are voted. Address Board of Education.

Okla., Eufaula.—Election will probably be called to vote on \$30,000 water-works bonds. Address The Mayor.

Okla., McCurtain.—\$30,000 electric-light bonds will probably be issued. Address The Mayor.

Okla., Milburn.—Election is to be held June 16 to vote on \$9000 electric-light bonds. Address The Mayor.

Okla., Miami.—\$10,000 school bonds are reported voted. Address E. F. Lohman, Clk., School Board.

Okla., McLoud.—City proposes to issue about \$15,000 water bonds. Address The Mayor.

Okla., Okmulgee.—Election will probably be called to vote on sewer bonds. Address The Mayor.

Okla., Pawhuska.—Election is to be called to vote on \$30,000 bridge bonds. A. B. Mallory is Mayor.

Okla., Ponca City.—\$20,000 5 per cent. 5-20-year auditorium bonds have been purchased at par by J. J. McGraw.

Okla., Poteau.—\$168,500 LeFlore county road-improvement bonds recently voted have been sold. C. L. Woods is County Clk. (See Manufacturers Record, June 1.)

Okla., Sapulpa.—School bonds are reported voted. Address Board of Education.

Okla., Stillwater.—\$10,000 6 per cent. \$1000 sewer bonds, maturing 1941, were purchased at \$10,856 by Geo. I. Gilbert, Oklahoma City.

Okla., Tishomingo.—\$12,000 high school bonds are voted. Address Board of Education.

Okla., Wagoner.—Election will soon be called, it is reported, to vote on \$8000 electric-light-plant bonds. Address The Mayor.

### BAKER, WATTS & COMPANY BANKERS

We purchase

State, City and County Bonds

Loans made in anticipation of Tax Collections  
Southern Issues a Specialty

Correspondence invited from Municipal Officials, Banks and Private Investors

Send for book on "Municipal Obligations"

Calvert and German Sts.

BALTIMORE, MD.

### BONDS CITY, COUNTY, SCHOOL, ROAD, DRAINAGE, WATER Bought and Sold

We Purchase Direct or from Contractors

THE HUGH RIDENOUR CO.

COLUMBUS, OHIO

CHARLES L. HEHL, C. P. A., President JOHN KUCHLER, C. P. A., Vice-President  
ERNEST E. WOODEN, C. P. A., Sec. and Treas.

## BALTIMORE AUDIT COMPANY

901-903 Calvert Building

BALTIMORE, MD.

AUDITS SPECIAL EXAMINATIONS SYSTEMATIZING  
**ALONZO RICHARDSON & CO.**  
CERTIFIED PUBLIC ACCOUNTANTS  
EMPIRE BUILDING ATLANTA, GA.  
A staff of thoroughly trained and qualified accountants whose experience enables them to make a critical analysis of books and accounts.

### Manufacturers and Farm Loans

American manufacturers are making money now. Some of their profits ought to be invested in Farm Loans.

We offer mortgages of the choicest character on farms in Georgia and Alabama. These States are leaders in the great campaign of crop diversification that will revolutionize the South.

It is inevitable that land values will increase from year to year.

**THE SOUTHERN MORTGAGE COMPANY**  
Capital \$300,000 Established 1870  
Atlanta, Georgia

Write us about Investments in Birmingham Real Estate.

### Jemison Real Estate & Insurance Co.

Real Estate  
General Insurance, Loans

211 N. Twentieth St. BIRMINGHAM, ALA.

If you wish to keep posted on the progress of the South read the

### MANUFACTURERS RECORD

Price \$4 00 a year, or six months for \$2.00

## To Manufacturers and Capitalists

Contemplating the Establishment of Industrial Enterprises  
Attention is called to the exceptionally favorable location of

## NEWPORT NEWS, VA.

on Hampton Roads, fifteen miles from the sea, deep water, railway and sea transportation facilities unrivalled. Climate salubrious. Apply to

W. B. LIVEZEY, President

OLD DOMINION LAND COMPANY  
NEWPORT NEWS, VA.

## BARNES SAFE & VAULT CO.

ROBT. H. BARNES, Prop.

Estimates furnished on Diebold Safes and Vaults. We have the largest stock of new and second-hand safes south of New York.

12 N. 12th Street

RICHMOND, VA.

## York Safe and Lock Company

MANUFACTURERS OF

## SAFES and VAULTS

YORK, PA.

BALTIMORE, MD.

## THE GWYN SCHOOL

A home school for girls. Equipment new and modern in every particular. Grounds ample for outdoor sports and class work. Number of boarders limited. Special attention given to health and home conditions. Diploma accepted at Converse College and other high-grade colleges. Individual instruction given to all students. One teacher for every ten girls. Particular attention paid to outdoor sports.

SUMMER CAMP conducted in the mountains of North Carolina, near Asheville, during the months of July and August.

For catalog and full information address

MISS ELSIE L. GWYN, Principal, Spartanburg, S. C.

## CONVERSE COLLEGE

SPARTANBURG, S. C.

is one of the only six women's colleges in the South honored by membership as a standard college in "The Association of Colleges and Preparatory Schools of the Southern States." Its B. A. degree is accepted by the highest grade Colleges and Universities and admits, without further work, to candidacy for the M. A. degree. It has separate science, music, and library buildings; dormitories limited to 190; gymnasium and infirmary; 42-acre campus; and 38 teachers and officers. It is thirty-five miles from the Blue Ridge mountains, and has an ideal winter climate. It owes no debts, and has an endowment. It is accessible North, East, South, and West by six lines of railway. If you wish a catalogue, address

ROBT. P. PELL, Litt. D., President Spartanburg, S. C.

S. C., Anderson.—\$3500 bonds Airy Springs Dist. No. 64, Anderson County, are voted. Address County Comms.

S. C., Spartanburg.—\$10,000 20-year Co-operative School Dist. No. 97, schoolhouse bonds have been sold through Bank of Spartanburg.

Tenn., Covington.—\$20,000 30-year \$500 denomination school bonds have been purchased at \$925 premium and accrued interest by H. C. Speer Sons Co., Chicago.

Tenn., Nashville.—\$600,000 six months municipal notes have been purchased by Farson, Son & Co., New York and Chicago.

Tenn., Ooltewah.—Election is to be held in James county, Aug. 8, to vote on \$25,000 road bonds. Address County Comms.

Tenn., Savannah.—\$100,000 5 per cent. 1-20-year \$500 denomination Hardin County road bonds are voted and bids for same are now being received. A. A. Watson is County Judge.

Tenn., Union City.—Election is to be held July 11 to vote on \$25,000 30-year school bonds; interest not to exceed 5 per cent. Address The Mayor.

Tex., Austin.—The Attorney-General has approved the following securities: \$15,000 5 per cent. 10-40-year bonds Lamb County Common School Dist. No. 3; \$25,000 5 per cent. 10-40-year bonds Zavalla County Road Dist. No. 3; \$1000 5 per cent. 10-20-year bonds Rockland Independent School Dist.; \$10,000 5 per cent. 2-30-year bonds Victoria County Common School Dist. No. 7; \$8000 5 per cent. 10-40-year bonds Hidalgo County Common School Dist. No. 10; \$3000 5 per cent. 20-40-year bonds Olney waterworks bonds; \$2500 Dist. No. 21 and \$2500 Dist. No. 33, Bastrop County schoolhouse bonds; \$10,000 5 per cent. 5-40-year bonds Guadalupe County Common School Dist. No. 29; \$50,000 5 per cent. 10-40-year bonds Ennis schoolhouse bonds serial No. 1; \$30,000 5 per cent. 10-40-year bonds Ennis schoolhouse bonds serial No. 2.

Tex., Benjamin.—\$50,000 Knox County bridge bonds are reported being offered for sale. Address County Comms.

Tex., Benjamin.—\$50,000 Knox County bridge bonds are being offered for sale. Address County Comms.

Tex., Boston.—\$12,000 Bowle County road bonds are voted. Address County Comms.

Tex., Center.—\$3000 5 per cent. 5-20-year Shelbyville Independent School Dist., Shelby County, bonds are to be issued. Address Board of Trustees.

Tex., Cisco.—\$60,000 Cisco Road Dist., Eastland County, road bonds defeated.

Tex., Coleman.—\$40,000 Vos Precinct School Dist., Coleman county, bonds, recently voted, are 20-year 5 per cents. Denomination \$100. Dated June 12, 1916, and maturity June 12, 1936. Bonds will be offered as soon as approved by State Attorney-General. Address R. O. Shoemaker, Voss, Tex.

Tex., Corpus Christi.—Election is to be held July 8 to vote on \$150,000 40-year street paving bonds. Address The Mayor.

Tex., Dallas.—Election is to be held in Highland Park June 17 to vote on \$10,000 school bonds. Address School Board.

Tex., Denison.—Election is to be called to vote on \$60,000 school bonds. B. J. Lindsay is Prest. Board of Education.

Tex., Ennis.—Elections are to be held in Crisp, Bristol and Alsdorf, Ellis County, June 17, to vote on \$75,000 road bonds. Address County Comms.

Tex., Fort Worth.—\$5000 bonds Common School Dist. 98 recently voted are 40-year 5 per cents; denomination \$100. Address Board of Trustees.

Tex., Fort Worth.—Election is to be held July 6 to vote on \$225,000 school bonds. Address Board of Education.

Tex., Gilmer.—\$100,000 Upshur County bonds have been voted for Jefferson highway. Address County Comms.

Tex., Huntsville.—\$22,500 sewer and \$7500 street-paving 5 per cent. 10-40-year \$500 denomination bonds voted June 3 will be offered for sale about Aug. 1. T. E. Humphrey is Mayor.

Tex., Kenedy.—\$32,000 5 per cent. 40-year water works and sewer bonds were recently voted. Address The Mayor.

Tex., Kountze.—\$24,000 Road Dist. No. 3, Hardin County, bonds are voted. Address County Comms.

Tex., Lufkin.—\$8888 6 per cent. 1-18-year warrants for water-works improvement have been purchased by J. L. Arlitt, Austin, Tex.

Tex., Mount Vernon.—Election is to be held June 16 to vote on \$75,000 Dist. No. 1, Franklin County bonds. A. L. Reeves is County Judge.

Tex., Palestine.—\$75,000 Neches Dist., Anderson County, road improvement bonds are soon to be voted on. Address County Comms.

Tex., Sinton.—Election is to be held July 8 to vote on \$100,000 Precinct No. 1, San Patricio county, road bonds. Address County Comms.

Tex., Sweetwater.—\$100,000 5 per cent. 10-40-year Nolan County courthouse bonds are to be issued. Address County Comms.

Tex., Victoria.—Election to vote on \$35,000 sewage-disposal plant bonds was held June 13; result not stated. Address The Mayor.

Tex., Wichita Falls.—Election is soon to be called to vote on \$80,000 Wichita County bridge bonds. Address County Comms.

Tex., Wichita Falls.—Bids will be received until June 26 by W. J. Bullock, Prest. Board of Trustees, Wichita Falls Independent School Dist., for \$65,000 5 per cent. 10-40-year \$1000 denomination school bonds, dated June 1, 1916.

Va., Danville.—A special dispatch to the Manufacturers Record says that \$75,000 school bonds were voted at the election June 13 and that \$25,000 4½ per cent. serials will also be issued Oct. 1. Street-improvement bonds were defeated.

Va., Eastville.—Bids will be received until noon July 3 by Board of Suprvs., Northampton County, for \$25,000 5-30-year \$500 denomination road bonds, dated August 1, 1916. Geo. T. Tyson is Clerk, Board of County Suprvs.

Va., Manassas.—Bids will be opened about July 15 for \$20,000 5 per cent. \$500 denomination bonds for extension to public utilities; dated Aug. 1, 1916, and maturing \$1000 Aug. 1, 1926, and each year thereafter. Address C. R. Johnson, Chrmn. P. U. Com.

Va., Rustburg.—All bids received June 5 for \$200,000 Brookville Magisterial Dist. and \$40,000 Seneca Magisterial Dist., Campbell county, 4½ per cent. 20-34-year road bonds were rejected and new bids are invited until noon June 17. Denomination \$100 or to suit purchaser. S. C. Goggin is Clk. Bd. of Suprvs.

W. Va., Barboursville.—Bids will be received until June 20 for \$4500 6 per cent. 2-20-year school bonds, dated May 1, 1916. D. B. Shaw is Secy. Bd. of Education.

W. Va., Burnsville.—Bids will be received until 7 P. M. July 11 for \$17,000 5 per cent. 10-34-year municipal bonds; denomination \$100 or multiples thereof not to exceed \$1000. Address Frank Amos, Recorder. Further particulars will be found in the advertising columns.

W. Va., Keyser.—Election is to be held June 24 to vote on \$200,000 1-33-year bonds New Creek Magisterial Dist., Mineral county; interest not to exceed 4½ per cent. Dated Aug. 1, 1916; maturity Dec. 1, 1917, to Dec. 1, 1950. J. V. Bell is Clk. County Court.

W. Va., Lewisburg.—Bids will be received until 1 P. M. July 8 for the following 5 per cent. \$1000, \$500 and \$100 denomination road improvement bonds; \$153,500 Lewisburg Dist. dated June 1, 1916, and \$90,000 White Sulphur Dist. dated June 1, 1916; one-twentieth part of principal of bonds due and payable June 1 each year until entire issue is retired. John S. Crawford is Clerk County Court Greenbrier County.

W. Va., Ripley.—Election is to be held Aug. 15 to vote on \$8000 Dist. 5, Jackson county, road bonds. Address County Comms.

W. Va., Summerville.—\$250,000 Beaver District, Nicholas County, road bonds defeated.

W. Va., Wayne.—Wayne County pike bonds defeated.

## FINANCIAL NOTES

The city of Nashville, Tenn., proposes to redeem—if they can be obtained at not more than par and accrued interest—from \$359,000 to \$400,000 of its bonds, which will mature in 1918, this step to be taken under the sinking fund provisions of the city charter. In a total of \$718,000 of bonds which will mature in that year there are \$250,000 of 4 per cent. and \$300,000 of 4½ per cents., while the remainder are 5 per cents.

The North Carolina Association of Insurance Agents, at its annual meeting in Burlington, N. C., elected W. E. Sharpe, of that city, to be president; S. G. Ogburn of Winston-Salem first vice-president; Paul W. Schenck of Greensboro second vice-president and Ray Johnson of Winston-Salem secretary and treasurer to succeed Mr. Sharpe. An insurance federation for the State was also formed at the meeting with George W. Montcastle of Lexington as president and W. B. Merrimon of Greensboro as secretary.



## ARCHITECTS ENGINEERS

## CHEMISTS

## GEOLOGISTS CONTRACTORS

### Ford, Bacon & Davis, Engineers.

115 Broadway, New York

New Orleans

San Francisco

### J. E. SIRRINE

Mill Architect and Engineer

#### SPECIALTY:

Textile Mills and Water Power Developments

GREENVILLE, S. C.

### ARTHUR D. LITTLE, Inc.

ESTABLISHED 1886

The oldest, largest and best equipped organization of Chemists and Engineers in the country for the investigation of conditions affecting the efficiency and economy of industrial operations.

93 Broad Street

BOSTON



### Stone & Webster Engineering Corporation

Constructing Engineers

NEW YORK

BOSTON

CHICAGO

### THE INSTITUTE OF INDUSTRIAL RESEARCH

(INCORPORATED)

Chemical and Engineering Laboratories

Consulting Chemists and Chemical Engineers

Plant Design and Construction

WASHINGTON, D. C.

### THE J-G-WHITE COMPANIES

ENGINEERS

FINANCIERS

43 EXCHANGE PL.

CONTRACTORS

OPERATORS

NEW YORK



### SCOFIELD ENGINEERING COMPANY

Consulting and Designing Engineers

ALL CLASSES PUBLIC UTILITIES

PHILADELPHIA

PENNSYLVANIA



### GRAVES ENGINEERING CO., Inc.

MANAGE, CONSTRUCT, FINANCE

Public Utility Properties

Examinations and Reports. Rate Specialists.

25 PINE STREET

NEW YORK

### ATLANTIC ENGINEERING COMPANY

Engineers Constructors  
Electrical—Civil—Mechanical

Steam and Electric Railroads; Bridges; Highways; Water Powers; Power, Lighting and Industrial Plants; Municipal Improvements; Docks and Wharves; Drainage and Reclamation Projects; Railroad Valuation; Appraisals; Economical Power Production.

606-607 Germania Bank Building

SAVANNAH, GA.

### KELLY, COOKE & CO.

Engineers

Design and Supervision of Construction  
Operation, Reports, Appraisals, Rate Developments  
Public Utilities — Industrial Plants — Municipalities

PHILADELPHIA, PA.

### ISHAM RANDOLPH & CO.

CHICAGO JACKSONVILLE

Consulting Engineers

Reports, Plans, Supervision, Drainage,  
Harbor Work, Water Power, Bridges,  
Municipal Work and Railways.

1310 Heard Bldg. JACKSONVILLE, FLA.

### W. E. MOORE & COMPANY

Engineers

Reports, Designs, Supervision, Public  
Service Properties. Power Developments,  
Distribution and Application.

Union Bank Building

PITTSBURGH, PA.

### T. T. GRAY

Industrial Research Chemist and Petroleum Engineer.

Petroleum and its Products, Compounds,  
Greases and Specialties. Examinations,  
Refining, Manufacturing, Specifications,  
Research.

1363 North Ave.

ELIZABETH, N. J.

### EDWIN WORTHAM, E. E.

Consulting and Supervising Engineer

The Design and Operation of Factories,  
Industrial Plants, Railways and Public  
Utilities.

Allison Bldg.

RICHMOND, VA.

### HENRY MASSART, C. E.

INDUSTRIAL ARCHITECT

and

CONSULTING ENGINEER

Fireproof Construction

15 E. Fayette St.

BALTIMORE, MD.

### NORTON, BIRD AND WHITMAN

Engineers

Electric Light and Power Plants, Hydro-Electric Plants, Municipal  
Improvements, Sewerage and Water-Works, Public Service Properties.

WM. J. NORTON,  
Mem. Am. Inst. E. E.

PAUL P. BIRD,  
Mem. Am. Soc. M. E.

EZRA B. WHITMAN,  
Mem. Am. Soc. C. E.

CHICAGO, ILL., 111 West Monroe St.

BALTIMORE, MD., Munsey Building

### CRAM ENGINEERING CO., Inc.

Consulting Engineers

Mechanical, Electrical, Industrial, Efficiency.

Examinations, Reports, Valuations, Estimates.

Finance, Operate, Manage Public Utility and Industrial Properties.

Maryland Casualty Building,

BALTIMORE, MD.

### THE J. B. McCRARY COMPANY

Engineers

ATLANTA, GEORGIA

### MUNICIPAL IMPROVEMENTS

Southern work only. Have built over half of the Water, Light and Sewer  
Systems in Georgia and Alabama. We Design — Finance — Superintend.  
Bonds Purchased.

### ARCHITECTS ENGINEERS

Your card on these pages will place  
you directly before the active forces  
of the South and Southwest.

### W. B. FLUHARTY

Surveyor

Land, Road, Street and Sidewalk Work.

GREENSBORO, N. C.

### M. R. CARPENTER

Refrigerating Engineer and Architect  
For Abattoirs, Creameries, Ice Plants, Etc.

66 Pickering Bldg. CINCINNATI, OHIO

### L. K. ROBBINS, M. E.

Consulting Engineer

Deep Well Water Supply Systems

227 Westgate Ave. ST. LOUIS, MO.

# ARCHITECTS      ENGINEERS GEOLOGISTS CHEMISTS      CONTRACTORS

## FRANCIS R. WELLER, M. Am. Soc. C. E.

*Consulting Engineer*

Hydro-Electric and Steam Power Plants, Reports, Appraisals, Designs,  
Construction, Properties Operated

Hibbs Building,

WASHINGTON, D. C.

## SAVANNAH ENGINEERING AND CONSTRUCTION CO.

*Engineers and Contractors*

SAVANNAH, GEORGIA

Specialty Design and  
Construction of

REINFORCED CONCRETE WORK

## ALLEN SCALES ENGINEERING COMPANY

*Engineers and Contractors*

Water Works

Heating and Ventilation

Power Plants

Stahlman Building

NASHVILLE, TENN.

## THE S. R. SMYTHE COMPANY

*Engineers*

PITTSBURGH, PA.

*Contractors*

Steel Works, Rolling Mills, Blast Furnaces, Hot Blast Stoves, Furnaces for all  
Purposes. Operated with Producer Gas, Natural Gas, Oil or Pulverized Coal.  
Coke Ovens. Gas Producers, Hand Operated or Mechanical.

*The Valve of the Era.*

SCHILD SLIDING GAS AND AIR REVERSING VALVES

## HUNT ENGINEERING CO.

Designing, Constructing and Operating Engineers and Contractors

*Experts in Portland Cement Engineering*

Examinations and Reports Made

513-517 Republic Building

KANSAS CITY, MO.

## SAWMILL CONSTRUCTION COMPANY

*Contractors and Engineers.*

SAVANNAH, GA., and NEW ORLEANS, LA.

## TUCKER & LAXTON

*Contracting Engineers*

Filters, Concrete Work, Hydro-Electric and Steam Electric Construction

CHARLOTTE, NORTH CAROLINA

A. P. CORNELL, President    W. A. YOUNG, Sec'y & Treas.    R. H. JONES, Asst. Sec'y & Treas.

## CORNELL-YOUNG COMPANY

INCORPORATED

*General Contractors*

Gen'l Office, 4th Nat. Bank Bldg.

MACON, GA.

## C. W. LANE & CO., Inc.

*General Contractors*

Steam and Electric Railroads, Water Powers Developed.  
City Water Works, Sanitary Sewers, Street Paving, Concrete Buildings.

General Offices, Healey Building

ATLANTA, GA.

## Dredging

RIVER AND HARBOR IMPROVEMENTS

Hydraulic Fills

Land Drainage

Dock Construction

GLOBE DREDGING CO.

SAVANNAH, GA.

## THE CONCRETE STEEL BRIDGE COMPANY

*Engineers and Contractors*

Reinforced Concrete Bridges and Buildings

708-9 Union National Bank Building

CLARKSBURG, W. VA.

## INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

### Well Drilling.

Work has been begun by the Hughes Specialty Well Drilling Co., 96 Ashley Ave., Charleston, S. C., on its contract with the town of Greenwood, S. C., for drilling from one to four 10x8x500-foot wells.

### Philadelphia Office Building Planned

Plans are being prepared for a 12-story office building and power-house to be erected in Philadelphia for the Franklin Trust Co. of that city by the Scofield Engineering Co., Commercial Trust Bldg., Philadelphia. Plans and specifications are progressing rapidly, and are expected to be completed about June 20.

### Grate Bars Having Good Sale.

In reporting the best business for a long time, the Thomas Grate Bar Co., Birmingham, Ala., mentions as among its good orders of the past few days contracts for 58 sets of shaker bars obtained by its New Orleans agent, 28 sets for one plant in Terre Haute, Ind.; 10 sets for the Lehigh Portland Cement Co., Allentown, Pa., for its Mitchell (Ind.) plant.

### Factory Sale.

A plant, including a large foundry and machine shop, fully equipped and stocked for immediate operation, in a suburb of Indianapolis, Ind., will be sold at auction on June 29 by Russell T. MacFall, 1216 State Life Bldg., Indianapolis. Pig-iron, tool steel and other raw materials will be sold with the plant. An illustrated prospectus giving detailed description of the property will be mailed on request.

### Western Electric Office Moves.

The executive departments of the Western Electric Co., Inc., New York, have moved from 463 West street to new offices in the Telephone and Telegraph Building, 195 Broadway. The move was made necessary by the steady growth of the company's engineering departments, which will occupy the space vacated in addition to the present offices at that address. It is thought by the company that this change will furthermore be advantageous in bringing the executive department in closer touch with the heart of the business district.

### Pumping Head and Jack.

The special features of a combined pumping head and jack developed by the Goulds Manufacturing Co., Seneca Falls, N. Y., are an open hollow base, and head built in two sections with a pipe flange between, the up-

per section consisting of the air chamber and the top and the lower section of the open hollow base, gearing, pulley and jack. It is made for hand, windmill or power operation. Brief specifications, as contained in a recently issued circular, include adjustable stroke, 6, 8 or 10 inches; 2½-inch suction; weight, 200 pounds.

### Packards at Plattsburg Camp.

Ten Packard chainless motor trucks, delivered on a rush order from the Packard Motor Car Co., Detroit, are assisting Uncle Sam in the development of his citizen soldiery at the Plattsburg (N. Y.) training camp. The trucks are of one and a half tons capacity, are painted a neutral adobe-tan color, with tarpaulin-covered army transport bodies, and are exactly like the 12 Packards which are carrying supplies to General Pershing's army in Mexico.

Eleven mechanics of the Packard Company accompanied the trucks to instruct volunteers who desire to take special training in motor transport work.

### Expansion of Storage Battery Co.

The steps of its rapid expansion are sketched by the Electric Storage Battery Co., 19th St. and Allegheny Ave., Philadelphia, in a statement from the president, Herbert Lloyd. In 1911, already possessing a large factory, the company was forced by the widespread use of Exide batteries to erect an addition, which took the form of a six-story concrete building. During the past winter another 6-story concrete building was started and is now under way. Just recently a triangular tract of land adjoining the factory and fronting 545 feet on the Reading railway was purchased. Residences thereon are being razed and new buildings will be erected.

### New Packard President.

Alvan Macauley, who for the past two years has virtually been the president of the Packard Motor Car Co., Detroit, will shortly be officially placed in that position. Henry B. Joy, the present president, has given his time during that period toward broadening and strengthening the Packard organization to meet the conditions of its very much enlarged business. He will continue to direct the activities of the company in this broad way as chairman of the board. The change of title entails no actual change in management, being made at the request of Mr. Joy as recognition of the services of Mr. Macauley and for the sake of accuracy, the company states.

[Continued on Page 84.]

## W. H. FLEMING

*Asbestos and Insulating Engineer*

Insulating for Steam-Water Refrigeration. Saving of Heat Units.  
Contracting and Superintendence for any work along these lines.

1523 Jefferson Co. Bank Bldg.

BIRMINGHAM, ALA.

## GENERAL PURCHASING AGENT

Supplies and equipment for manufacturers of all kinds;  
quarries, mines, contractors, lumber and woodworking plants.

HOWARD S. GRIMES

429 Law Building

BALTIMORE, MD.

## SPRAY ENGINEERING COMPANY

*Engineers*

*Manufacturers*

For Spray Cooling Ponds, Irrigation  
Systems, Aerating Reservoirs, Odor  
Condensers, Gas Washers.

Of Air Washers, Spray Nozzles,  
Aerating Nozzles, Asphalt Nozzles,  
Park Sprinklers.

93 Federal Street

BOSTON, MASS.



We test foundations for buildings, bridges and dams.  
We prospect coal and mineral lands in any part of  
North and South America.

## WE LOOK INTO THE EARTH

By use of Diamond Core Drills

PENNSYLVANIA DRILLING COMPANY

2023 Whitehall Bldg., New York.

30 Carson St., Pittsburgh, Pa.

Phone Rector 5993

Phone Hemlock 305.



Reprinted from  
Manufacturers Record, June 8, 1916.

### Polk County, Florida, Votes \$1,500,000 for Roads.

The largest single bond issue ever voted by any county in the South for good roads was ratified by the citizens of Polk county, Florida, last week by a majority of 2 to 1. It provided for an issue of \$1,500,000.

The work to be carried out under this bond issue covers 217 miles, included in which is a 55-mile section of the Dixie Highway. These roads have been so arranged that they provide for the building of highways through all parts of the county and connecting with the main highways of adjoining counties, and carry out, in a large part, the slogan of the Polk County Good Roads Association of providing a road "from every town in the county to every other town in the county."

In submitting the bond issue to the citizens for ratification the commissioners followed the usual program now in use in Florida of making contracts for specific roads, subject to the issuance of bonds by popular vote. Plans and specifications for their construction were drawn by H. S. Jaudon Engineering Co. of Savannah, Ga., and Bartow, Fla.; bids were received upon the work and all contracts were awarded before the bonds were submitted to the people.

Thus the people of the county knew exactly where the roads were to be built, of what material they were to be constructed and exactly what they were to cost, and were able to register their votes upon a thoroughly definite proposition. The fact that Polk county voted at a majority of 2 to 1 emphasizes the progressiveness of its people.

The entire system of roads is to be built of two inches of sheet asphalt on clay foundation four inches thick after compression under a 10-ton roller, and the specifications were so drawn that they provided for a sheet-asphalt pavement similar to those laid in large cities.

In connection with the road system 20 reinforced concrete bridges and 90 reinforced concrete culverts are to be constructed. The entire work is to be completed in 400 days. The various contracts were awarded as follows:

Division 1—W. P. McDonald Construction Co., Mt. Vernon, N. Y., \$284,963.75.

Division 2—Continental Public Works Co., New York, N. Y., \$218,478.75.

Division 3—Eureka Paving Co., Houston, Tex., \$299,694.75.

Division 4—E. C. Humphrey, Hackensack, N. J., \$232,630.

Division 5—Edwards Construction Co., Tampa, Fla., \$272,195.

Bridges (all divisions)—Champion Bridge Co., Wilmington, O., \$79,809.30.

Reinforced Concrete Culverts (all divisions)—Edwards Construction Co., Tampa, Fla., \$66,125.

The bonds voted are serial ones of the denomination of \$1000. Two hundred and fifty of the bonds will be due and payable annually at the rate of \$50,000 per annum between the years 1921 and 1925, inclusive. The second series of 750 bonds will be due and payable annually at the rate of \$75,000 per year between 1926 and 1935, inclusive. The third series of 500 bonds will be due and payable annually at the rate of \$100,000 per year between 1936 and 1940. The bonds bear 5 per cent. interest.

The Board of County Commissioners by resolution made as bond trustees to handle the funds, Messrs. W. H. Lewis of Fort Meade, T. L. Wilson of Bartow and C. M. Clayton of Lakeland. In addition, the commissioners also appointed an advisory board from the Polk County Good Roads Association, consisting of one member from each commissioner's district, these being C. C. Martin of Mulberry, H. M. Mansfield of Fort Meade, J. N. Hooker of Bartow, H. W. Snell of Winter Haven and M. F. Hetherington of Lakeland.

The Board of County Commissioners in direct charge of the work are J. C. Swindel, chairman, Lakeland; J. E. Lancaster, Chicora; John S. Howard, Eloise; A. T. Mann, Bartow; W. T. Hurst, Fort Meade, and J. A. Johnson (clerk), Bartow, Fla.

### The Board of County Commissioners The Designing Engineers and Five of the Contracting Firms

in charge of

## Polk County's \$1,500,000 Road Work

*The Largest Single Road Bond Issue  
Ever Voted by Any Southern County*

Are Subscribers to  
the

# MANUFACTURERS RECORD

Subscribes to the Manufacturers Record  
at both Savannah, Ga., and Bartow, Fla.

Subscribes to the Manufacturers Record

Subscribes to the Manufacturers Record  
at both New York City and Mt. Dora, Fla.

Subscribes to the Manufacturers Record

Subscribes to the Manufacturers Record

Subscribes to the Manufacturers Record

Subscribes to the Manufacturers Record

Subscribes to the Manufacturers Record

**You Should Read the Manufacturers Record**  
if you want to get the quickest and fullest  
information about Road Work in the South.

**And Advertise in the Manufacturers Record**  
if you want to sell road materials, equip-  
ment or machinery in the South.

**MANUFACTURERS RECORD**  
BALTIMORE, MD.

# INDUSTRIAL NEWS OF INTEREST

[Continued from Page 82.]

## Brunswick Copper Works Changes Hands.

Owing to the death of its former owner, M. A. Baker, the Brunswick (Ga.) Copper Works, one of the well-known plants of its kind in the South, has been sold to a corporation formed to take it over, controlled by C. M. Peddicord of Brunswick, and W. A. McMillan and Paul E. Twitty, of Jacksonville, Fla. The plant will continue to produce the same high grade of copper, turpentine stills, worms, patent turpentine cups, etc., and it is aimed to maintain the reputation made by it under Mr. Baker's management. The name will remain the same.

## Changes in Metal Working Co.

Succeeding the firm of Merritt & Co., the Dexter Metal Manufacturing Co. occupies the former's plant at Front and Arch streets, Camden, N. J., where, in addition to the manufacture of metal lockers, shelving and steel equipment of all descriptions for department stores, factories, hotels, gymnasiums, swimming pools, garages, etc., it has installed a new department for wire working and the manufacture of wire screens, elevator inclosures, light ornamental guard work in brass and iron, and machine guards. William A. Parent, formerly general manager of the Edw. Darby & Sons Co., Inc., 239 Arch street, Philadelphia, Pa., has gone with the new company in the same capacity.

## Pump Manufacturers Move Headquarters.

The general offices, formerly at Houston, Tex., and sales office, Kansas City, Mo., of the Layne & Bowler Company, manufacturers of the Layne screen and Layne pump, have been combined at Memphis, Tenn. Although manufacturing was started by the company in Memphis, as of a branch plant, it has grown so rapidly as to outstrip the company's other works, becoming the main factory. The company has been successful in making several municipal installations recently, one of the leading of which is the installation for Galveston, Tex., consisting of wells located 17 miles from the city, supplying pure water by pipe line. Branch offices in all the large irrigation fields will be maintained as formerly.

## Southern Clay Manufacturing Co. Buys Birmingham Plant.

A recent announcement was made that the Southern Clay Manufacturing Co. of Chattanooga, Tenn., manufacturer of paving blocks and Dunn wire-cut lug brick, had purchased the paving-brick plant of the Graves Shale Paving Brick Co. at North Birmingham, Ala., thus increasing the annual capacity of the purchaser from 30,000,000 to 40,000,000 paving blocks. The main plant of the company at Robins, Tenn., is said to be the largest of the kind in the South. In 1902 the company purchased a plant at Coaldale, Ala. At all of its plants the company owns its own coal, clay and shale supply, together with a large acreage of land. These plants are provided with modern equipment, such as steam shovels, locomotives, cars and complete machinery for manufacturing its paving blocks.

## TRADE LITERATURE

### Fire Door Hardware.

Sliding fire doors, horizontal and vertical, and double and single swinging doors, for all requirements and with all necessary fittings, are described in a catalogue issued by the Richards-Wilcox Manufacturing Company, Aurora, Ill., which manufactures "a hanger for any door that slides," and doors for all fire-proof purposes.

### Gas Plant Construction.

Illustrations of parts of various plants planned and constructed by the Stone & Webster Engineering Corp., New York, are contained in a booklet of the above title issued by the company. The largest shown is of the Pawtucket (R. I.) Gas Co., with a rated capacity of 1,000,000 cubic feet per day of coal gas and 2,750,000 feet of water gas.

### Tool Catalogue.

Catalogue No. 21 has been issued by the L. S. Starrett Co., Athol, Mass., superseding previous editions. The new catalogue con-

tains listing and descriptions of several new tools and advanced styles of tools previously in use. Tools are grouped according to class, and the volume is indexed by name and number. It contains 336 pages, which is something more than in former editions.

### Earth Movers.

Interesting illustrated articles on levee, road and Southern railroad work are given in the June publication of the Western Wheeled Scraper Company, Aurora, Ill. The last named is particularly so, showing illustrations of and describing operations of A. F. Langford, near Green Pond, S. C., for extension of the Seaboard Air Line Railway. The contractor is using a large number of Western dump cars.

### Heavy Duty Lubricant.

To answer the numerous requests it has received regarding the use of Texaco Crater Compound, the Texas Co., 17 Battery Place, New York, has issued a booklet explaining this lubricant, which is said to be a pure, heavy substance, without filler to give body to the lubricating matter itself, thus rendering it immune to the effect of heat, water or acids. Some remarkable results obtained by the use of Crater Compound are given in letters from customers.

### Self-Propelled Loaders.

Bulletin No. 177 has been issued by the Jeffrey Manufacturing Company, Columbus, O., containing illustrations, specifications and prices of self-propelled wagon and truck bucket chain loaders for handling crushed stone, sand, gravel, etc. Economy in time and labor is the point stressed in connection with the loaders. For instance, Type A-16, driven and run by a 5 H. P. I. motor or 6 H. P. gasoline engine, requiring but one operative, has a rated capacity of 1 to 1½ cubic yards per minute.

### Wire Rope Service.

A striking example of wire rope service is given in the June, The Yellow Strand, published by the Broderick & Bascom Rope Co., St. Louis, Mo. Illustrations are given of the building of the Hanover street bridge, at Baltimore, by H. P. Converse & Co., 88 Broad street, Boston, in which operation 47,390 feet of E. & B. wire rope was used. Other photographs show Yellow Strand rope in logging, shipping and building work. The company has 47 regular agents in the South, as well as many in other parts of the country.

### Du Pont Products.

To throw light on its stated aim to constantly expand its industrial activities along constructive lines the E. I. du Pont de Nemours Co., Wilmington, Del., has issued a booklet of the title above, giving information on 251 distinct commodities produced by the company and its subsidiaries. One of the articles to which much attention is given is Fabrikoid, artificial leather, well known in connection with the shibboleth, How many hides has a cow? A separate booklet has been issued devoted to Fabrikoid for book finish. Both volumes are bound in that material.

### Slate Roofs.

Permanency beyond the life of the building, absolute fireproofness, even, pleasing color, as demonstrated by 175 years of actual service, are points in favor of slate roof stated in an attractive little booklet issued by the Bangor Slate Mining Co., miners and shippers of roofing slate and all slate products, Bangor, Pa. The company also states, and gives its reason for doing so, that slate roofs do not require additional strength in the rafters. The slate of the company is urged as being of the best quality, straight and uniform. Besides roofing slate, the company produces a full line of structural slate.

### Air Humidifier.

As described in a recent circular issued by the Normalair Co., Winston-Salem, N. C., the Normalair humidifier effects the rapid evaporation of water by the free air of a room by reducing the water to very fine particles, or fog, by mechanical means within the machine itself and forcing this by a draft of air into the open. The principle is that of throwing the water that enters the machine by an automatic feed, from a rapidly revolving disk by centrifugal force. It leaves the disk in small particles at high speed and is thrown against the teeth of a copper grid that cir-

cumscribes the disk, where it is pulverized. All that is sufficiently fine to float around the edge of the case is then caught in the blast from the fan and distributed through the room.

### Bulk Chutes and Valves.

Catalogue No. 15-3, issued by the C. W. Hunt Co., West New Brighton Bldg., New York, illustrates and describes the company's standard types of coal and ashes gates, giving dimensions of those which are more frequently used in power-house and storage-pocket design. Illustrations showing the application of these valves are given to assist where there is any question as to the type best suited to the requirements. The data given is intended to enable an engineer to use these designs for his installations, but consultation with the company's engineers on complicated or unusual problems is advised.

### Pumps for Every Use.

A handsome bound catalogue has been issued by The Deming Company, Salem, O., in which the various classifications and uses of Deming pumps are explained, illustrations of all articles listed being given with the text. The volume is divided into distinct chapters, each embracing a class of pumps, or accessories, which arrangement has been employed to facilitate locating the listing of desired articles with the aid of the table of contents, in addition to which figure and alphabetical indexes are given. Over 30 years ago the company began making pumps of the simplest kind, each year adding to the volume and variety of the output, until today the products of its plants are said to meet practically every condition in pumping, with all sizes and kinds from the smallest hand pump to the largest power pump.

### Gas for Dallas and Fort Worth.

Because of the increasing degree in which natural gas is being used in dwellings and industries of Dallas and Fort Worth, Tex., the city governments of these cities, on a co-operative plan, secured Government engineers, George Charlton Matson and Carroll H. Wegeman, to make investigation of the

fields within reach of these cities. The report, published by the Department of the Interior in pamphlet form, undertaken to answer the questions: How much gas are the developed fields within reach of Dallas and Fort Worth capable of producing? How much remains in the developed pools and how long will this last if marketed at an estimated rate? Likelihood of increase of area of fields, or finding of new producing sands in any of the old fields; quantity of gas, within broad limits, likely to become available through enlargement of existing fields; likelihood of discovery of new fields and their whereabouts.

Yearbook of the Department of Agriculture, 1915. By David Franklin Houston, Secretary of Agriculture. Cloth-bound. 626 pages.

The book is the usual annual report of the Secretary of Agriculture, containing such reports from different bureaus and divisions and such papers prepared by the department's special agents, accompanied by illustrations intended to be specially suited to interest and instruct the farmers of the country, and a general report of the operations of the department. The Secretary in his report to the President states that, in spite of the greatly disturbed condition of the world during the last year and a half, agriculture in the United States, as a whole, has prospered. In some sections the war in Europe has caused severe hardships and great financial loss, while in other sections its first result at least has been very considerable financial gain, he asserts. He gives statistics on the matter, and takes up individually the chief problems confronting the agricultural interests and therefore the department, such as agricultural exports, the cotton situation, importance of research, the meat supply, potash supply, marketing and distributing, credits and finance, etc.

## Oxy-Acetylene Welding and Cutting



A large manufacturer of gas ranges uses the Prest-O-Lite Process for welding pipe on to gas burners. Many times faster than tapping. Has welded 215 per hour.

equipment close at hand you can make instant repairs of broken or worn machine parts right in your own shop, avoiding expensive delays and replacements.

Wherever two pieces of metal are to be joined, the best and cheapest solution is offered by the

**Prest-O-Lite**  
PROCESS

Employs both gases (acetylene and oxygen) in portable cylinders. Prest-O-Lite Dissolved Acetylene (ready-made carbide gas) is backed by Prest-O-Lite Service, which provides dry, purified gas, insuring better welds, quicker work and lower cost, and also avoids the large initial outlay and heavy depreciation incurred in making crude acetylene in a carbide generator.

The necessary equipment is not expensive. We furnish high-grade welding apparatus for \$60 (Canada, \$75); acetylene service at additional cost. Also adaptable for oxy-acetylene cutting by the purchase of a special cutting blow-pipe. Thorough instructions are furnished free to every user; any average workman who understands metals can learn the process quickly.

Why delay investigation of this valuable process for your metal manufacturing, construction and repair work? Thoroughly illustrated oxy-acetylene welding and cutting literature sent free on request.

## The Prest-O-Lite Company, Inc.

The World's Largest Makers of Dissolved Acetylene

Main Offices and Factory  
809 Speedway, Indianapolis, Ind.

Canadian Office and Factory  
Merriton, Ontario

53 Branches and Charging Plants





e re-  
t the  
s to  
s are  
Dallas  
How  
and  
at an  
se of  
ucing  
ty of  
ecome  
isting  
fields

ricul-  
Hous-  
Cloth-

ort of  
ining  
s and  
by the  
panied  
pecially  
armers  
ort of  
The  
esident  
y dis-  
ng the  
in the  
spered.  
pe has  
finan-  
ts first  
derable  
es sta-  
p ind-  
ronting  
ore the  
exports,  
of re-  
supply,  
its and

ng

s  
al  
ng

re of  
the  
pro-  
ylene

anu-  
these  
s to  
weld-  
rt in  
grade  
pro-

veted  
your  
elded  
e the  
joint

elding  
chine  
lon is

ot ex-  
weld-  
\$75);  
cost.  
e cut-  
al cut-  
uctions  
r; any  
stands  
ickly.

